The Journal of the American Medical Association

VOL. XXII. CHICAGO, MAY 12, 1894. No. 19.

ORIGINAL ARTICLES.

THE FIRST SUCCESSFUL CASE OF CÆSAREAN SECTION IN PLACENTA PRÆVIA, AND REMARKS ON THE METHOD OF OPERATION.

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History of the Case and Literature.—On Nov. 19, 1893, at 2 P.M. I was called to see Mrs. A. M., by her physicians, Drs. R. J. O'Reilly and W. W. Graves. The message calling me stated that I was wanted in order to perform the Cæsarean section and that the case was one of placenta prævia centralis. The patient is a healthy woman, 42 years of age, mother of four living children, the youngest a boy 10 years old. Dr. O'Reilly had been engaged to attend her in confinement which he had calculated would take place about the middle of December. He had been called by the husband at 1:30 A.M. on account of an alarming hemorrhage and arriving a few minutes later found the patient excited and frightened by the unexpected hemorrhage, sitting in a chair and a large bundle of cloths under her saturated with blood. The os was closed but the finger could be introduced and the placenta felt, as well as the blood streaming from the uterus. The vagina was tamponed and the patient put to bed, pelvis elevated and perfect rest enforced. Dr. W. W. Graves was sent for to assist and he arrived at 2:30 A.M. Patient's condition being good and the bleeding having ceased, the physicians determined to watch the course of events. As there had been no labor pains, it was thought that possibly the pregnancy might go on to its normal end, if the patient was kept quiet, and indeed there was no labor and no further hemorrhage occurred until 1:30 P.M., just twelve hours afterwards, when I was called. Dr. Thos. O'Reilly and Dr. Geo. F. Hulbert were also called and I brought my assistants, Dr. Ben Shanklin and Dr. Roux. After a consultation in which very conflicting views were expressed and carefully weighed, we concluded to perform the Cæsarean section, knowing full well that the operation had never been successfully performed under similar circumstances. All the physicians present concurred in the opinion that it was the best thing to be done for the mother and child under the existing circumstances.[1]

Under this head I may say that the credit for suggesting the operation in this case belongs to Drs. Graves and O'Reilly. Both of these gentlemen are experienced practitioners and obstetricians, both knew exactly what placenta prævia is, and fully understood the difficulties confronting them and the dangers to the two lives which were intrusted to them.

In a paper published in the *American Gynecological Journal* in September, 1892, by Dr. W. Hutson Ford, I find the only complete and logical discussion of this subject. In a learned and scientific manner the author arrives at definite conclusions upon purely theoretical grounds. This paper will always form the basis for the future discussions of the subject and the case here recorded will go far towards supporting the author's very positive conclusions.

The reasoning which led us to perform the Cæsarean section in this case was based on the brilliant results of this operation in the hands of expert operators in recent years. I myself had performed the Cæsarean section successfully at the Protestant Hospital in St. Louis upon a hunchback with narrow pelvis, saving both mother and child. I reported the case at the time to Dr. Robt. P. Harris and was informed by him that it was the first successful case in the State of Missouri. The statistics of the mortality of placenta prævia, when treated by the Braxton Hicks method in the hands of experts are not as favorable as those of the Cæsarean section under the same conditions. I am personally of the opinion that in this country, at least, expert obstetricians who are thoroughly well grounded in bacteriology and practical asepsis are not as frequent as similarly qualified surgeons.

The Operation.—The patient resided in a newly-built house, the external surroundings were favorable and one of the rooms was quickly prepared for the operation, while the patient herself was thoroughly cleansed after the usual methods now practiced in all cases where the abdominal cavity and the vagina are both involved.

After the patient was chloroformed, she was placed upon the operating table and again scrubbed with a 1–500 bichlorid solution, and the vagina again douched and swabbed through a speculum by the assistants. The os uteri was found closed at this examination. I am a thorough believer in rapidity in abdominal work and in a typical operation like the Cæsarean section I think that everything should be prepared beforehand with a view to performing the work in the quickest possible time, if for no other reason than to shorten the time of the narcosis. In this case which was an ideal one, so far as the condition of the patient was concerned, I stated before making the incision that I would try to break the time record and requested Dr. Thomas O'Reilly to carefully time the different steps of the operation.

The first incision extending from the umbilicus to the pubes, opened the abdominal cavity and cut the

[1] I wrote to Dr. Robt. P. Harris, of Philadelphia, and to Dr. Howard Kelly, of Johns Hopkins, as well as to the largest maternity hospitals in Europe and have found no record of Cæsarean section performed in a case of placenta prævia. Since then, I have found that the operation has been done twice before, but under the most unfavorable circumstances, once in the city of St. Louis by Drs. Hypes and Hulbert, and once in the mountains of Montana by Dr. J. M. Sligh, of Granite City. (*American Journal of Obstetrics*, February, 1892). The result in both cases was fatal because the operation was done upon patients who were much exhausted and weakened by loss of blood.

peritoneal covering of the uterus to the extent of one-half of an inch, but not being long enough to roll the uterus out of the cavity was extended about two inches above the umbilicus. All bleeding was checked and the incision washed with warm Crystal water.[2] The uterus was now rolled forward out of the cavity and an assistant standing between the patient's legs grasped the organ with both hands and compressed it against the horizontal ramus of the pubes.

The uterine cavity was next opened by an incision and while the water was escaping, the incision was lengthened upward and downward by a blunt-ended large pair of scissors. The living child was lifted out and handed to Dr. Hulbert for further care. Umbilical cord clamped and cut off. At this moment Dr. O'Reilly stated that a few seconds less than three minutes had been consumed in the operation.

The membranes were now stripped off and the placenta readily peeled off while the uterus was contracting down nicely. There was some oozing from the seat of the placenta and the uterine cavity was douched with the sterilized water in order to remove the clots. Some intestines had rolled out and after being washed were replaced.

The uterus was stitched with twelve deep silk sutures which embraced all of the layers of its walls. I aimed to embrace only the serous and muscular layers, but many of the sutures embraced the decidua as well. There is no good reason for not including the decidua and therefore, as long as the sutures only include the very edge of this inner coat, if at all, the healing by primary union can not be interfered with. Four superficial or perhaps "half deep" silk sutures as Dr. Kelly would call them, were placed between the twelve deep ones at those intersutural spaces where there was gaping or pouting enough to warrant their use. I have never been able to see an essential or important innovation in Sänger's sero-serous suture, and if the deep sutures are properly placed no others are necessary. It must be understood that by "properly placed," we mean that they are so arranged as to leave no pouting or gaping between the lips of the wound, that perfect approximation is achieved by one row of deep sutures. There can be no doubt that a perfect approximation by one row of sutures is better and more to be desired than by two or more rows—this part of the operation required eight minutes. The omentum was next brought down over the uterine sutures, and the closure of the abdominal incision by about twenty sutures embracing all the layers finished the operation, the entire procedure having taken exactly twenty-four minutes and forty-five seconds.

The external wound was treated by dusting it with Sennine and covering it with dry gauze and the ordinary abdominal bandage over all. The uterine cavity was now sponged out, per vaginam with iodoform gauze, the os was found easily dilatable and that part of the uterus to which the placenta was attached formed a ring about two and one-half inches wide reaching from the cervix upwards. I had prepared a very large gum hose seven-eighths of an inch in diameter, almost as large as a garden hose, which was passed into the uterine cavity and allowed to pass through the vagina ending in a large bunch of gauze in front of the vulva. Through this hose, injections and irrigations of the cavity could be made, if there should be any necessity at any time during the puerperium.

The patient was now put to bed and the after treatment was conducted by Drs. Graves and O'Reilly who were assisted by trained nurses. There was at no time during the convalescence any serious complication, except perhaps a slight tympanitis which disappeared after a purge. Patient sat up on December 3, and the nurses were discharged on December 12. Mother made a perfect recovery and has been well ever since.

The child did well for a few hours, but became asphyxiated, as the physicians suppose, on account of non-closure of the foramen ovale and died after about ten hours. The child was probably not much over eight months' gestation.

In conclusion, I may be permitted to express some epicritical opinions. The most important question which confronts me is: Would you advise the performance of the Cæsarean section in all cases of placenta prævia where the Braxton Hicks method or some similar operation is the only alternative? I would answer as follows: If an expert operator can be had who has done or assisted at more than two hundred abdominal sections of all kinds in which the total mortality was less than 7½ per cent. by all means let him do the Cæsarean section. If no such surgeon is at hand, select a physician to deliver the child who has frequently turned and extracted, one who knows how to clean his hands and who knows that it is a very difficult and tedious task to properly shave and cleanse the vulva and the vagina.

[2] In the city of St. Louis we are very fortunately situated for doing surgical operations in private houses, since the introduction into commerce of the sterilized and filtered water known as Crystal water. The price is so low and the package so convenient, that I now use it exclusively for irrigation of wounds and flushing cavities. By using it directly out of the bottles it need not come in contact with the hands of assistants or vessels of any kind, which I feel is a most important safeguard against its infection.

THE DIAGNOSIS AND TREATMENT OF "FLOATING KIDNEY."

A paper read by special invitation before the Sixth Annual Meeting of the Shelby County Medical Society, Shelbyville, Ind., April 9, 1894.

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The frequency of "floating kidney" associated with its varied complications, together with the errors in diagnosis, certainly warrant our taking up this subject, and considering it for a few moments before this ASSOCIATION.

The experience of the writer both as a general practitioner and consultant, has led him to believe that the existence of a floating kidney is more likely to be misunderstood and taken for something else than any other one disease of the abdominal cavity.

I have seen floating kidney treated for "lumbago," also for so-called "sciatic rheumatism." In another case I saw an able practitioner tap it for "ascites," and still another case where it was mistaken for an enlarged ovary.

On the other hand, I have seen an enlarged and pendant "gall bladder" filled with gall stones, mistaken for a movable kidney, and the mistake was not discovered until revealed by an operation. With these few examples, which we have given, as having come under our own observation and occurring in the

experience of able practitioners, it is quite evident that the diagnosis of a floating kidney is not always an easy task. In fact, it has been my experience that the early diagnosis of a floating kidney is seldom made, unless the patient is so fortunate as to fall into the hands of an experienced diagnostician early in this class of infirmities.

As a rule, you are called upon by some practitioner who has treated the patient for months or even years without success until one or both have become dissatisfied and seek relief either through council or a change in physicians.

By this time you may have had torsion of the renal vessels and nerves, and consequently find the patient suffering from lumbar pains, sciatica or both. On the other hand, the patient may be perfectly free from pain except more or less frequent paroxysms, during which it may be likened to that of a case of renal colic. Not unfrequently the patient, and especially if the abdominal walls are thin, will observe a tumor in the peritoneal cavity, which excites attention, although when first discovered it may not cause any special pain.

It is not uncommon to find that hydro-or even pyonephrosis may have set in; if the latter, it is not unusual to find it associated with secondary infection in the form of tuberculosis.

The clinical facts have forced us to the conclusion that the symptoms of a floating kidney vary, in accordance with the conditions which may be associated with it, and which are largely modified by the changes and complications which, as a rule, sooner or later, accompany this malady.

It may be considered presumptuous on my part to even attempt a definite diagnosis of floating kidney when such a noted authority as Agnew in his "Surgery," and even Pepper, in the "American Text-Book of Theory and Practice of Medicine," fail to give it, saying nothing of its omission in the "American Text-Book of Surgery;" and yet our little cycle of experience has led us to the belief that it fills a position which is sufficiently important in the diagnosis and treatment of abdominal diseases as to justify us in contributing our mite to the study of this distressing malady. I now imagine I hear some of my collaborators ask: What difference does it make? If you are satisfied there is a tumor in the abdominal cavity, make an incision and find out what it is. It will be time enough then to remove it if you can, or relieve it if you can not do any better, or let it alone if you must.

While we are ready to accede this point to those who are experienced and practical operators, yet the point I wish to make is that in the majority of cases movable kidney presents itself to the average practitioner, who is not experienced in abdominal surgery or in the diagnosis of abdominal tumors, who dare not open the abdominal cavity and look at its contents in order that he may make a diagnosis but who must resort to text-books for his information; and when, as I have already said, these text-books fail to give him this instruction it is our duty, although our experience may be limited, to give him what assistance we can from our accumulated storehouse of practical knowledge and aid him, if possible, to make an early diagnosis in this class of diseases.

On making an early diagnosis, I believe, hangs the importance of successful treatment of floating kidney. A failure to make an early diagnosis, simply means that your patient will take nine chances out of ten of contracting complications which are liable to be so grave as to require nephrotomy or even nephrectomy to relieve them. It is these neglected cases of floating kidney where you find long-continued severe nueralgias, due to torsion and subacute neuritis.

It is usually in the neglected cases of floating kidney that you find hydro-nephrosis, due to stenosis of the ureter, which, however, may last for weeks and even months without serious destruction to the substance of the kidney, as has been demonstrated by the author of this paper, by repeated experimental research but which, sooner or later, unless relieved is nearly certain to be followed with either cystic degeneration or pyonephrosis, tuberculosis or all, either one of which, if allowed to continue for any length of time, not only endangers the patient's life but will require a nephrectomy or to say at least, nephrotomy to relieve.

DIAGNOSIS.

In making a diagnosis of a movable kidney we should first consider the predisposition. This is largely governed by sex; women who have borne children, and especially if they belong to the laboring class, are *particularly* prone to this disease; poorly nourished females contribute their share, while age and occupation are important factors in contributing to this disease.

In reference to sex, floating kidney occurs much more frequently in females than in males, although I have seen several cases in males and one case in a young man who was unusually strong and muscular.

Notwithstanding our text-books inform us that floating kidney usually occurs between the age of 25 and 40 years, yet I have seen it occur in a young man under 18, and have found it in women who were past 70.

Occupation unquestionably has a great deal to do with causing floating kidney. The young man I have just referred to, was a member of a baseball club and addicted to violent exercise, which finally resulted in producing a floating kidney.

Again, washer-women who expose themselves to heavy strains, are frequently found suffering from this malady, while puny females, who lie around the house studying "how to do nothing," not infrequently becomes victims of this disease, often by suddenly changing their habits, during the presence of a friend by jumping out of a buggy or over a fence, which is followed by a displacement of the kidney. The same holds true of poorly nourished females, who may be suffering from some constitutional disease or marasmus, which has reduced them to such an extent that the least exertion will force the kidney out of its place. Pressure on the kidney during pregnancy has a tendency to cause displacement, and is not unusually followed by a floating kidney.

It is quite evident in attempting to arrive at a correct diagnosis that it is of the greatest importance that we carefully study all the predispositions which may lead to the production of a floating kidney and, if possible, ferret out the cause or causes which may have been the factor or factors in producing it. Having accomplished this, which is comparatively easy as compared with the differential diagnosis, we are then ready to undertake to distinguish it from other abdominal maladies, which, I am sure, we are willing to admit is not always such an easy task.

If the functions of the kidney have been interfered with by the displacement, the use of the urethral catheter will be of great service in making a correct differential diagnosis, especially if the congestion has been so great as to produce hematuria; where this occurs the use of the urethral catheter will very greatly assist us in arriving at the correct diagnosis.

In making the differential diagnosis between an enlarged and elongated gall bladder and a floating kidney, we must remember that traction upon the tumor, in the case of the gall bladder, will reveal that it is attached to the liver instead of the lumbar region, while traction upon the kidney will demonstrate that it is attached to the lumbar region instead of the liver. As a rule, the difference in texture where the abdominal walls are not too thick will enable you to diagnosticate between them; yet, when the gall bladder has very thick walls and is very much distended with semi-liquid bile and where the kidney is somewhat flabby, it becomes very difficult to differentiate between the two by the touch; but as a rule, with the history and the predisposition to guide you, this feature of the diagnosis can be decided.

If it happens to be the left kidney, that is affected (which is quite unusual), the complications of diagnosis are at once relieved.

Where the gall bladder is involved, it is not unusual to have it associated with jaundice and all its accompanying symptoms and complications. On the other hand, we would not expect, except in anomalous cases, to find jaundice occurring in the case of a floating kidney. In many cases digital examination will enable you to distinguish the kidney in its natural position on the well side, and its notable absence on the other side; at the same time it is often an easy matter to replace the floating kidney which, on pressure, will readily slip from under your finger and either ascend under the margin of the liver, or descend even to the brim of the pelvis; or it may be, in some cases, pushed over to the median line and assume a position on the abdominal aorta so that the pulsations of the latter may be distinctly felt underneath the displaced kidney, which may be outlined very distinctly by the aid of these pulsations. Under these circumstances, pressure will frequently shut off the circulation to such an extent that the femoral artery on each extremity can not be distinguished. It would be difficult to accomplish this with a distended gall bladder. In fact, I have never succeeded in doing so in cases of this class that have come under my observation.

As a rule, a displaced kidney is much more sensitive than an enlarged and elongated gall bladder, and while the shape may not always enable us to form a correct diagnosis, yet the difference in the outline of the tumor is such that we are guided with considerable accuracy in the line of a correct differential diagnosis. The elongation of the right lobe of the liver may complicate the differential diagnosis in this class of cases.

It is only a few days since I was consulted in a case of this kind in which a lady came to me from Northern Ohio, with the history of having suffered from a floating kidney for the last seven years. In addition to that, she had a very elongated and "hour-glass" shaped right lobe of the liver. The rest of the liver was apparently normal, but on careful digital examination we were enabled to shoot the kidney up under the elongated lobe of the liver and down below it, and by pressing the liver outward and upward we could readily distinguish the kidney which was also elongated beside being flattened, evidently the result of pressure from the liver.

As a rule, a patient who has floating kidney is relieved when in the prone position, but in this case the pain was increased, owing to the fact that the prone position caused the liver to press upon the kidney and thus increased the pain, and no doubt, was largely the cause of the displacement.

The patient was admitted to the Protestant Hospital, and assisted by Dr. Baldwin I made the radical operation, when this condition was demonstrated and the movable kidney sutured fast to the muscles of the back; the patient is now making a rapid recovery. In this case, however, I am inclined to believe we can hardly expect to secure permanent relief, for the reason that the liver will continue to make pressure on the kidney which may sooner or later have to be removed.

The differential diagnosis between a movable kidney and that of a spleen is much more readily accomplished. The location of the spleen being on the left side is less frequently called into question, owing to the fact that the left kidney is less frequently displaced. But when it is displaced, it is seldom the spleen assumes a shape that in any respect corresponds to that of the kidney and very seldom drops down as low in the abdominal cavity as a floating kidney. Again, the kidney may be pushed up under the pendent portion of the spleen which will enable you to readily feel both organs at one time. If, however, the spleen extends down over the kidney, it will be readily distinguished from it by a digital examination, and the kidney will be felt underneath that portion of the spleen which extends in front of it.

The increased mobility of a floating kidney, as compared with that of the spleen, is a ready guide in making a differential diagnosis, so much so that we can scarcely imagine how it is possible under ordinary circumstances to misconstrue what we are almost warranted in calling positive symptoms pointing to a correct differential diagnosis. Cancer of the pylorus might possibly be mistaken for a movable kidney especially when the mesentery is very long, and where the cancer assumes the shape and size of a kidney and drops down below the normal position of the kidney, as I have seen it in several cases.

Only a few days ago, assisted by Dr. Means, I operated on a case of this kind which had been admitted to the Protestant Hospital of Columbus, in which the cancerous mass was so movable that it could be pushed beyond the median line on the left side, and down as far as the kidney on the right side; and on the other hand, could be pushed up under the margin of the liver or over the large curvature of the stomach. But on careful examination it was found entirely distinct from the kidney which remained stationary, no matter what position the tumor was placed in, saying nothing of the gastric disturbances which enabled us to make a clear differential diagnosis. On making a laparotomy it was clearly demonstrated that our diagnosis was correct. A gastro-enterostomy was made with the Senn bone plates and the patient, although sixty years of age, made a rapid recovery without a bad symptom. In these cases you always have the history of stomach disturbances which do not exist, as a rule, in displaced kidney. You have no interference with the urinary

secretions, no lumbar pains, no tenderness on pressure of the kidney, while you have, as a rule, tenderness on pressure over the cancerous mass. The principal points which might lead us astray in a case of this kind are the size, shape and location of the tumor together with its mobility.

Omental tumors which are quite frequent, might possibly be mistaken for a movable kidney, but as a rule are seldom painful except as they may produce mechanical pressure, and likewise they seldom interfere with the functions of the kidney unless it is by mechanical pressure on the ureters, producing hydronephrosis. This, however, seldom occurs. Where an omental tumor is movable, it is readily distinguished from the kidney by digital examination and palpation, as the latter will be found in its normal position, while the other may be moved around through the different parts of the abdominal cavity, seldom if ever invaded by the kidney.

The differential diagnosis between a small ovarian tumor with a long pedicle might possibly be mistaken for a movable kidney. Comparison between the two would, however, on the one hand, enable us to raise the kidney far above a point which would be at all probable in the case of an ovarian tumor, while the latter would be found to be anchored to the pelvic region instead of in the lumbar, as in the case of the former. A vaginal examination would aid in determining the presence of an ovarian tumor, while in the case of a floating kidney it would be quite out of the question to force it down to a point where it could be touched with the finger in the vagina.

We must also remember that a movable kidney in the early stage is extra-peritoneal, while an ovarian tumor is practically intra-peritoneal, the latter usually having a broad pedicle, which, as we have already said, is anchored in the pelvis, while the former has a long narrow meso-nephron anchored near the median line of the lumbar region.

TREATMENT.

We have little confidence in the palliative treatment of a floating kidney, as we believe it is the exception and not the rule that such treatment results in any permanent relief. Experience has taught us, as well as thousands of patients, that the lesions which result from neglect of these cases in the vain effort of securing relief from palliative treatment were worse than useless. Blisters, lineaments, bandages and compressors, we look upon, and especially the latter, as actually injurious, which only submit the patient to additional torture with little or no prospect of permanent relief, and is almost certain to be followed, sooner or later, with organic disease necessitating nephrotomy and often nephrectomy.

It is our firm belief that the only safe and successful treatment of a movable kidney is a radical operation by which the kidney is replaced and firmly anchored by a number of sutures, which should not only pass through the capsule, but should include a portion of the parenchyma as well as the fascia and muscles underneath.

For accuracy and rapidity of the operation in making the radical treatment for a movable kidney, we would suggest the use of a suture of either chromatized catgut or silkworm gut, both ends of which should be armed with a long, slim needle varying from six to seven inches in length, according to the patient, the points of which should be triangular, and when used it should be passed through the capsule and the parenchyma of the kidney and directly through the muscles of the back, making its exit through the skin. The second needle should also be passed through the kidney from one-half inch to an inch distant from the entrance of the former, and pass directly through the muscles of the back, making its exit through the skin the same as its mate.

If you desire to have the suture remain, an incision should be made through the skin and the suture tied and the skin stitched over it. If, on the other hand, you desire to remove the suture subsequently, all that is necessary is to tie your sutures on the skin and allow them to remain until you are ready to remove them. This procedure will very greatly simplify the operation which will require a much smaller opening than when you use a curved needle and attempt to fasten by suture the kidney and its capsule to the fascia and muscles of the back in the ordinary manner. With the use of the long needle the suture can be put in very quickly and as many as are necessary to hold the kidney to place, tying them on the patient's back and the abdominal incision closed, all of which can be done in a very few minutes, and we believe it to be equally as efficient and much easier performed than the old method generally in use.

If the patient submits to this line of treatment in the early stages of this malady, before serious complications arise, there is little or no doubt of her permanent recovery and practically little danger in the operation.

On the other hand, where the radical treatment is not resorted to, there is always danger of serious organic disease of the kidney, which may sooner or later prove fatal, and if not, the patient becomes a nervous, suffering miserable creature, of little benefit to herself or those around her.

RESPONSIBILITIES OF THE ABDOMINAL SURGEON.

Presidential Address delivered before the Tri-State Medical Society.

BY RICHARD DOUGLAS, M.D.

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I take this, the first opportunity since my elevation to the honored position as President of the Tri-State Medical Society, to thank you for the undeserved and unsolicited expression of your confidence and regard. Conflicting emotions of pride and dismay possess me in entering upon the duties of the office.

The magnificent program we have presented for your entertainment and instruction, is convincing evidence that within the compass of this organization there are men alive to every recent issue that has created a ripple on the waters of the vast professional sea, and that these contributions, many of which you have enjoyed, attest the thoroughness and excellence of their work. Impressed with our competency to present to the world transactions of the highest order, I feel impelled to take this occasion to urge the immediate necessity of systematizing our work. As a Society and individuals, we are prone to dissipate our energies. Concentrated and united effort would yield absolute results, and my word for it, a principle or conclusion emanating from this Society would become authoritative. "In all depart-

ments of science the largest results are to be obtained by division of labor and combination of effort." Therefore, it is to be hoped, and if I may presume to exercise the rights, with which you have vested me, I would suggest that such necessary legislative action be taken for the creation of a new committee to be known as the Committee on Essays and Discussions, and that the President and Secretary be *ex officio* members. The duties of this Committee shall be the selection of a limited number of subjects, divided under several headings, and that two or more members, as may be necessary, be appointed at this meeting to present papers at the next annual meeting upon the several branches of the subject. The essays thus prepared and presented will be accepted as a careful and complete study of the subject. Manifestly, work pursued after this plan would yield a volume of transactions of inestimable worth. Far be it from me to depreciate the value of voluntary papers and accurate clinical reports, for oftentimes they are gems of originality and indisputable facts, garnered in the harvest of experience. Furthermore, the impromptu discussions following these contributions are a fair test of the ready wit and depth of wisdom of our members.

Believing the Fellows will tolerate another recommendation which is humbly submitted, I would remind you that in holding the annual meetings in Chattanooga, this body has departed somewhat from the precept born of experience, that governs all medical organizations, National and State, *i.e.*, if you desire a medical association to flourish, then you must rejuvenate it yearly by the acquisition of new members. These you can more readily acquire by going into their midst, and attracting them by the character and excellence of your work. I would recommend that our place of meeting be changed annually. Chattanooga, gentlemen of the Tri-State Society, is our mother. We, like wandering children return to cast ourselves at her feet and receive her blessing and do her reverence. Proud we should be of our natal soil. We stand upon hallowed ground. Every feature of its varied and beautiful landscape is sacred with historic significance. Nature, with sublime architectural conception, has builded here about an amphitheater, and from the terraced seats and galleries high, spectators have witnessed for more than a century, the most appalling tragedies of our nation's history. Here dwelt the fierce and implacable Chickamaugas, a tribe of the Cherokees, notorious above all for their treachery, daring and hatred of the pale face. "The eagle in his eerie, the panther in his lair," could not be safer than the wily savage was, secreted in the mountain gorges, inaccessible except through a labyrinth of narrow passes, cul-de-sacs and steep ascents. Yet, the combined courage and sagacity of Sevier, Montgomery, Robertson and Jackson annihilated him from Nickajack to Running-Water, and the brave old Cumberland settler began a life of peace and prosperity not to be interrupted until the tragic days of September, 1863, when in quick succession were fought the battles of Chickamauga and Mission Ridge—the Marengo and the Waterloo of the Confederacy. Upon the faults of Bragg and the fortunes of Grant the fate of a nation hung, yet let the dead past bury its dead, and here under the shadows of Lookout let memory be forgot.

It is yet too early in the life history of this organization to hope to interest you with a review of the work accomplished at previous meetings. Believing a brief discussion of some specific subject will prove more acceptable than a rambling essay in generalities, it is most natural that I should give expression to those feelings which, in the hours of reflection, oppress me. The responsibilities of the abdominal surgeon is the theme of my brief discourse. In the awkward expression of my thoughts I may appear dogmatic and, perhaps, unintentionally wound the feelings of some of my hearers. Permit, me, then, to preface what I have to say with a disavowal of any such purpose. If I can rouse the slumbering conscience of a single would-be laparotomist, I may blight in embryo a glorious and *gory career*, but I will also save one, perhaps many human lives, and the object of this paper will be accomplished.

For fear my position may be misunderstood, and that I may be ranked with those, who, under the title of a plea for conservatism, are consuming valuable space in our journals with lengthy communications, mere expositions of their own ignorance and a contemptuous attempt to reflect upon some rival, I wish at the outset to declare myself opposed in principle and practice to those so-called conservative methods which permit bags of pus to remain for weeks or months in the pelvis, while the tinkering gynecologist douches, paints, poultices and stuffs the woman. Nor can I comprehend the process of reasoning that induces some of our ablest men to tease an ectopic gestation sac into the suppuration with electricity, when a properly executed section offers absolute recovery at the minimum risk to life. How pathetic it is to see one of these conservatists, from fear and selfishness only, patiently waiting for a renal or hepatic suppuration to mature. Can any one question for a moment, that the abdominal section with its perfected technique, is the crowning glory of modern surgery? The great responsibility of abdominal surgery rests with and upon the operator. Is he, as you know and hear of him, up to the full measure of the requirements? Has he a conscientious understanding of the vastness, of the seriousness of the undertaking? Does he appreciate the fact that abdominal work is above, apart and beyond all other surgery, that in its execution he is confronted with problems peculiar to this field of labor? Upon his thorough knowledge of all things within, his boldness, his comprehension and application of every principle of surgery, even to its most minute details, depends the issue of the case—the life of an individual. Furthermore has he the training in this special line of surgery, for in the language of Dr. Potter, "unless he has the abdominal experience he has no right to enter its domains except under urgent necessity." It is incomprehensible, yet a fact, that men without previous training or special work of any kind of surgery, men who would tremble to amputate a thigh, or quail if confronted with an aneurism, hail with delight the finding of a condition that gives them a flimsy excuse for opening the peritoneum. Skilled workmen have found this membrane remarkably tolerant when handled intelligently. This fact has been emphasized of late. The eager and inexperienced have interpreted it to imply that the peritoneum is insensible to any degree of heat or cold, resists violence like a prize-fighter, can digest, absorb and remove anything from a few square inches of a suppurating cyst to a pair of forceps or an occasional sponge, will entertain with cordial hospitality all manner of filth,

and in the end, by noble self-sacrifice, permit the patient to recover. "Certainly the peritoneum has overlooked more insult and withstood more foolishness than most parts of the body." Surely this wonderful structure with its great powers of absorption, is not altogether protective in its functions. Does the careless, the inexperienced, the filthy operator take into account the possibilities of danger to the patient through this membrane alone?

The italicized and oft-quoted paragraph from Mr. Tait which reads as follows: "In every case of disease in the abdomen or pelvis in which the health is destroyed or life threatened, an exploration of the cavity should be made," is an established principle for government, but does that say that you, or I, any or every one shall operate? It is not so expressed. Yet this clear cut rhetorical sentence is perverted and used as an admission ticket to the cavity of the abdomen. The amazement of many aspiring laparotomists when they first see the hitherto unknown beauties of the vasa-intestini tenuis or the Fallopian fimbriæ, or the crystal cyst of Mortgagni, may be likened to the bewilderment of a country bumpkin at a village fair. Must you not confess you have seen the cavity invaded by men whose anatomic knowledge could not assign the viscera to their proper regions? Whose full knowledge of pathology might be expressed in "poultice a bile 'till its ripe, then split it." Have these would-be surgeons the knowledge of hemostasis at their command? Can they comprehend Péan or Grigg-Smith's preference for forceps pressure? Do they understand why catgut is both unreliable and dangerous? Do they know how and when to employ elastic ligature? These are common questions; a thousand more would confront them in detail work.

After years of study in general surgery, bacteriology and asepsis, it will take an average hospital interne six months to learn how to be moderately clean, and even with this education only about one in fifty become practically aseptic. Divert his mind for ever so short a time from the routine preparation necessary for aseptic work, and some fatal blunder will be committed, sepsis will creep in, and infection will follow. (I appeal to those of you who are constantly engaged in surgery, if by some chance you have not occasion to operate for several days, do you not find it necessary to keep a careful watch upon yourself to avoid violation of some rule for the exclusion of infection?) This is not the place to raise the question of the value of antiseptics, but it is meet now, and at all times to proclaim our faith in aseptic or clean surgery, and as I have above attempted to show, its practice involves not only a theoretical knowledge, but a practical training. Pray answer me, then, by what right or privilege have men without either of them to enter the domain of abdominal surgery? Upon the other hand, it may be well argued and successfully maintained, that conscientious and ambitious men are not to be restrained because they have not enjoyed the advantages of education and training. A man with bent of purpose may educate himself. Until that knowledge is acquired, it matters not how, he should keep his hands out of the abdomen. I regret to say that there is another class of men attracted to this field of surgery—men wholly incompetent and unscrupulous, that we now and then hear of throughout the country, doing a needless section simply for the glory of the thing. Happily there are few such men, yet if reports be true, they exist. Further mention of them is degrading to our subject. Enthusiasm, an honest desire for heroic and radical measures, the temptation of sudden glory, of quick fame may lead a young ambitious man to operate without due preparation and perhaps needlessly. This doubtless is done too often and some luckless patients suffer the consequences. Science is not altogether without some compensatory advantages. One neophyte receives an impressive lesson—pathology perhaps an interesting specimen, and our science a more devoted savant. Hawkins Ambler, in an address before the British Gynecological Society on "Abdominal Surgery," said many things that merit reflection. Every one engaged in this work should carefully study his conclusions, one of the most striking of which is thus expressed: "I believe many disasters are the result of too careless speech by men whose experienced hands can do safely what another could not attempt with safety to his patient."

In line with this thought, it is not at all unusual to hear some of our ablest teachers and most successful operators depreciate the value of differential diagnosis in abdominal disease. With eagerness akin to cruelty, a quick conclusion is reached that the life, perhaps only the comfort, of the patient is in jeopardy and therefore a section must be made. You all are familiar with the stereotyped expression of one of our most distinguished Southern gynecologists who, indifferent as to diagnosis, remarks to his assistant as he is about to open the abdomen: "We will see what we will find ———." One more word, and you could charge me with dealing in personalities. It is my honest conviction that this careless disregard of the importance of a discriminating diagnosis is responsible for rash, needless and most unfortunate surgery. The responsibility of these errors rests not alone upon the operator committing them; the fault is reflected to those of authority who have encouraged this looseness and indifference in diagnosis. A diagnosis is the capstone of the edifice whose foundation is pathology, with a superstructure of well braced symptomatology. I grant you, a diagnosis can not always be attained; no one is more impressed with this fact than I am while writing these lines, for it occurred to me only a day or two ago to open the abdomen, believing I had to deal with a large uterine fibroid, when the true condition was a sarcoma of the kidney, which when removed weighed thirteen pounds. The surgeon who applies with painstaking patience, all recognized points of differentiation, escapes much embarrassment during and after operation, achieves better results and places himself and science on a much higher plane than one of these "trust-to-luck fellows," indifferent to pathology, only concerned with the apparent indications for surgical interference. I, therefore, maintain that a long training in the laborious study of pathology and symptomatology and practical familiarity with the methods of physical examination are prerequisite qualifications for one contemplating abdominal work. Without these, to what extent he may bring opprobrium upon our art and render himself legally responsible, is as yet *sub judice*. The necessity for operation and your fitness for undertaking it, appeals to your judgment and conscience, The propriety having been determined, your real responsibilities are now assumed. It is not the pur-

pose of this paper to enter into a detailed description of the mode of preparation, time of operation, order of room, presence of visitors, choice of anesthetics, assistants, etc.; everything should be done by the direction, every one engaged should be upon the selection of the operator. Your associates and consultants may express their willingness to indorse your action and divide responsibility, for which magnanimous expression of confidence I have more than once felt profoundly grateful, yet this is only sentiment; the patient and friends hold the operator alone accountable. The law places the burden of responsibility upon the surgeon, the science of surgery intrusts to him alone the protection of her honor, and, lastly, if he be a man made of the right kind of stuff, his own conscience accepts, without effort to shrink or shift, the weight of the occasion. When discord and indecision threatened the integrity of our government, General Jackson, he whom we love to speak of as "Old Hickory," with characteristic courage upon that memorable occasion said: "I will take the responsibility." Every abdominal surgeon should have the courage of Jackson to assume the responsibility and act in accordance with the dictates of an enlightened conscience. The frequent practice of abdominal section has eliminated more false theories, shattered more chimerical pathology, exploded more so-called established principles, resulted in more substantial scientific progress and saved more lives than any agent, method or device employed in the noble domain of medicine. All honor, everlasting and immortal honor to those who have developed this high art; from McDowell the originator, to Price its greatest exponent! A few reckless and incompetent men actuated, we fear by anything but the best of motives, have misunderstood and misapplied this great agent. Too many men fancy themselves naturally endowed with the qualifications for abdominal work, therefore the operation of celiotomy has fallen somewhat into disrepute, but this is only in obedience to the natural law of reaction. It is an established procedure—all that carping conservatists can say will not detract from the good it has done, nor lessen its future importance. All that I would say is to incite in the minds of those contemplating this work, a thorough appreciation of the requirements, difficulties and dangers that attend opening the abdominal cavity. One possessed of a thorough fitness and knowledge of these things will not abuse the procedure, but glorify our science!

PIGMENTATIONS OF THE SKIN.

Clinical Lecture delivered at the Medico-Chirurgical Hospital of Philadelphia.

BY JOHN V. SHOEMAKER, A.M., M.D.

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A smooth, pure skin, mantled with the glow of health, is an important element of comeliness. The beauty of this tissue is, however, peculiarly liable to be marred by the operation of causes arising from within or without the organism. Many constitutional ailments impair the complexion; many excite actual structural alterations of the integument. Habitual indigestion, malaria, chlorosis and other maladies exert a deleterious influence upon the nutrition of the skin. Addison's disease produces a more or less complete bronzing of the surface. A brown line extending from the umbilicus to the pubes is one of the signs of pregnancy though it is also occasionally seen accompanying chronic uterine disease. Irregular brown patches scattered here and there upon various regions of the body may also occur during pregnancy.

I desire to call your attention to a class of pigmentations often observed, which sometimes co-exist with excellent general health, but which in other cases are associated with definite physical failures and which are always a disfigurement. I have, in the first place, three patients to show you as examples of that very common affliction known in popular language as freckles, and classified in our dermatological treatises as lentigo.

Lentigo, freckle.—The first subject is a young man of 22 years, rather tall and of a vigorous build. His hair, you will notice is of a slightly reddish cast, his eyes gray and his complexion is naturally fair. He informs me, as I should judge from his appearance, that his general health is excellent, his appetite and digestion good. I look at his tongue and find it clean. I feel his arms and I find that his muscles are well developed. Until he came to the city, a few months ago, he had been used to an active out-door life in a country village. His face is plentifully sprinkled with freckles. The spots are all small, not much larger than the head of good-sized pin. They are of a yellowish brown color and, although numerous, do not coalesce. The freckles exist also upon the back of his neck, upon the dorsal surfaces of his hands and upon his forearms. He tells me that the remainder of his body is free from the little discolorations.

The second case occurs in the person of a youth, 17 years of age. He is of average height and strength but is not of so robust a type as the preceding individual. His tongue is somewhat coated, his appetite is not very good and he has a tendency to constipation. He is employed by a tailor as an errand boy and a helper about the shop. This lad has a dark complexion. His hair and eyes are of a brown hue, verging upon reddish, the color which is generally described as bronze. He would not be an ill-looking boy if his skin was free from freckles. His face is almost entirely covered with brown spots, of various sizes and shapes. The smaller ones are round and the larger are generally oval, but in some places the confluence of neighboring lesions has produced a figure of irregular contour. The hands of this lad, also, are freckled.

Our third patient is a young girl, aged 19 years. She is distinctly blonde, with a fair skin, light brown hair and blue eyes. Her skin is, unfortunately, to a certain extent disfigured by the presence of freckles. The number of the spots is not as large as in the other two cases, but they are sufficiently abundant to detract from an otherwise comely appearance. She is in good general health.

Freckles consist of an increased deposit of the normal pigment of the skin. This coloring matter, you are aware, is contained in the cells of the deepest layer of the epidermis, the rete mucosum or Malpighii. Persons of fair skin, and especially those having red hair, are the most frequent subjects of freckles. Brunettes, however, are by no means exempt, as is shown by the second case. In those of dark complexion a copious development of freckles often gives an unsightly and dirty appearance to the skin. They are not uncommon in mulattoes, partic-

ularly in those unwholesome looking specimens with but a slight shade of color, light hair and light gray eyes.

I need consume no time in describing the gross appearance of freckles. They are so common as to be familiar to every one. Their general variation as regards size is from a pin's head to a small pea. Those which adjoin each other will often coalesce to form a larger spot. They are most frequent upon the face, but often enough occur upon the back of the hands and may even affect those portions of the body which are habitually covered. Freckles are seen in persons of nearly every period of life, but do not often develop prior to the third year of age. As a rule, they make their first appearance during warm weather and are more conspicuous in summer. In some cases the spots pale during winter or even disappear, returning with the approach of the succeeding summer. Interrogating the patients now before us, I learn that none has observed any decline in the spots during the colder portion of the year. Freckles are apt to disappear entirely and permanently as the subjects reach or pass beyond middle life.

Freckles are not dependent upon any constitutional disorder, though their development may be favored by a slight disturbance of the peripheral nerves. They may occur in association with other diseases of the skin. The direct exciting cause is heat, especially the heat of the sun, in conjunction with the high winds of the spring and autumn. A certain predisposition on the part of the skin would seem to exist.

Treatment.—It is the subject of treatment which is the most important in regard to freckles. They are so common, they seem to cursory inspection such an integral portion of the skin that many individuals simply accept them as an undesirable blemish, without seeking to have them removed. In private practice, however, you will often be consulted, especially by young ladies, as to the possibility of removing freckles. It is evident that, in order to get rid of the spots, we must either stimulate the absorbent system to carry off the excess of pigment or must remove the affected patches of epidermis *en masse*. The chief objection to the latter procedure is upon the formation of a new epidermis the freckles will be reproduced by the same causes which occasioned them in the first place. The drugs which are most serviceably employed are such as possess a stimulant or slightly cauterant action when applied to the skin. They may be used in the form of ointment or solution. Alcohol is one of the remedies which may cause retrocession of freckles and it is therefore expedient to use as a menstruum for any other article upon which our choice or preference may fall. The application of strong carbolic acid to each spot will cause the cuticle to be detached in the course of a few days. The surface will then be red but clear, and the redness will then fade away leaving an unblemished skin. Corrosive sublimate, used in guarded strength, has been very widely employed in treatment of freckles. Salicylic acid is also effective in causing the epidermis to scale. Ammoniated mercury, or white precipitate, the chlorid of ammonium, sulpho-carbolate of zinc, are other substances which we may call into use. The root of Solomon's seal or polygonatum giganteum and other species of polygonati indigenous plants may likewise be employed, in the form of fluid extract or decoction, for the same purpose. The tincture of benzoin, the tincture of myrrh and the fluid extract of hamamelis are substances which may prove efficacious. One of the most beneficial medicaments to apply in this condition is the copper oleate, made into an ointment with lanolin, lard or cold cream, each ounce of the preparation containing from five to sixty grains, according to the circumstances of the case. The ointment of corrosive sublimate is made of the strength of from two to five grains to the ounce of excipient. Solutions of the same salt may contain from four to eight grains to the ounce.

The agents of which I have made mention may be combined in the following formulæ:

℞. Hydrarg. chlorid corros. .	gr. iv–xvj		24–96
Aquæ hamamelidis dest. .	℥jss	16	
Glycerin	℥jss	16	
Spir. vini rectificat	℥iii	96	

℞

℞. Hydrarg. chlorid corros. .	gr. iv–xvj		24–96
Tinct. benzoin	℥ij	8	
Spir. odorat . . . . q. s. ad.	℥iv	128	

℞

℞. Acidi borici	℥ij	8	
Cocain hydrochlorat	gr. x		60
Sp. vini rectificat	℥iv	128	

℞

Chloasma.—The two cases which I shall now show you present a more prominent and extensive discoloration; one which, moreover, though not at all uncommon is of much less frequent occurrence than freckles. I allude to chloasma.

The first of the two patients is a young girl, 20 years of age, who, two months ago, suffered from an attack of measles. Soon after recovery her face, which had previously been fair and fresh colored, became mottled by brownish spots of an oval shape, and varying in size. They are scattered and do not coalesce. They do not itch, smart, tingle or pain. They exhibit no desquamation. The spots annoy only by their presence. The body is entirely free. The general health is entirely unaffected. Her appetite and digestion are good.

The next patient is also a girl and is 18 years old. She has several large and rather dark brown spots upon the face but has none upon the body or limbs. There is a large brown patch of irregular outline upon each cheek. The spots occasion no discomfort and the patient considers herself healthy. She is, however, somewhat anemic. Her lips and tongue are pale and her finger nails lack their normal rosy hue.

The pigmented patches of chloasma vary considerably in size. The coloring matter, like that of freckles, is deposited in the rete mucosum. The only difference between the two affections, therefore, is that the patches of chloasma are considerably larger than the freckle spots. The surface is entirely smooth to the touch. The tint varies in different cases from light yellow to dark brown or even black. The deepest shades are sometimes designated as melasma or melanoderma.

Chloasma, as well as freckles, may be occasioned by exposure to heat or wind. Other external sources of irritation may also lead to the deposit of pigment. Thus, the friction of clothing, the pressure of belts, trusses, etc., the action of mustard plasters and fly blisters, the constant scratching excited by chronic skin diseases attended by itching, determine an increased formation of coloring matter. The spots brought about by such causes are known as idiopathic chloasma.

Unlike freckles, however, chloasma may depend upon the existence of serious internal disease. It may, as in one of the cases before us, follow an infectious malady, as measles. It may occur as a result of malarial intoxication. It sometimes co-exists with malaria, tuberculosis or cancer. Chloasma may develop in consequence of mental excitement. Certain affections of the skin also give rise to chloasma. Among these I may mention senile atrophy, morphea and scleroderma. Popular opinion has long associated chloasma with hepatic derangement, and a common name for the affection is liver spot. The most usual internal cause of the anomalous pigmentation is disorder of the uterus or ovaries. When due to this cause, the affection is known as chloasma uterinum. This form locates itself particularly upon the forehead and temples. In some instances the discoloration is very deep. It is apt to be especially dark in brunettes. Sometimes there are a number of small brown patches. In other cases the pigmentation extends almost without a break from ear to ear. Chloasma of utero-ovarian origin, forms an exception to the rule that only the face is involved. A deepening of the normal color may be seen around the nipples. In some cases the discoloration is not of long duration. In others it continues for an indefinite period. The surface is smooth, unless complicated with some other cutaneous malady. In pregnancy we sometimes meet with cases in which the discolored patches are very large and, indeed, involve almost the entire surface.

Chloasma uterinum may occur either in the single or married, either as a result of disease or of pregnancy. It does not often occur after the grand climacteric has been reached. Not infrequently it is associated with hysteria. When the underlying cause has been cured the chloasma generally disappears.

It is not possible to mistake freckles for any other affection. Any one is perfectly competent to make the diagnosis. There is one disease, however, which bears some resemblance to chloasma, and that is tinea versicolor. The patches of the latter malady usually appear upon the body, those of chloasma upon the face. In tinea there are a number of spots; in chloasma, there are but few. Tinea versicolor is accompanied by a fine scaling. The surface is perfectly smooth in chloasma and there is no desquamation. The patches of tinea enlarge rapidly and itch. Chloasma spreads slowly and gives rise to no itching. Finally, the microscope furnishes us with a test. Tinea versicolor is caused by the growth of a specific vegetable organism, the presence of which can be readily recognized.

Treatment.—The treatment of chloasma depends upon the same principles as that of freckles. The list of drugs which we may employ locally is much the same in both affections. In chloasma, however, we may be obliged to take measures for the improvement of the general health or for the relief of visceral disorders. Chloasma uterinum demands a therapy addressed to the genital system. Again, we must be cautious in the use of external remedies, remembering that certain caustics, when used too freely, invite a deposit of pigment. This is especially true of mustard, Spanish fly and croton oil. The mineral acids are also open to the same objection. Carbolic acid may be mopped lightly upon the surface of the discolored patch with advantage. Acetic acid may be likewise used in the same way. The local application of the tincture of iodin will sometimes prove beneficial. Caustic potash, potash and soda soaps may also be of avail. Veratrin ointment, the ointment of the nitrate of mercury or of ammoniated mercury, or mercurial ointment are other preparations which have their advocates. I have generally derived more satisfaction, however, from the employment of the ointment of copper oleate, the mercuric or the mercurous oleate. The corrosive sublimate was a favorite with Hebra, who used it dissolved in distilled water, alcohol or collodion, in the proportion of five grains to the ounce. A compress moistened in the solution is kept applied to the affected surface for a period of four hours. This produces a blister and the discolored epiderm is replaced by one free from pigment, though the color may subsequently reappear. Brushing the patch with peroxid of hydrogen will sometimes answer a good purpose. The tincture of benzoin and borax are also of service in chloasma. These various agents may be combined as in the manner indicated for freckles. A prescription which I have often used is thus composed:

℞.	Hydrarg. chlorid corros. . . .	gr. x.	60
	Ammon. chlorid.	ʒj. 4	
	Sp. vini rectificat	fʒij cc 32	
	Aq. hamamelid dest	fʒiij 100	

m.

Better than all the medicinal applications named, in both freckles and chloasma, is the use of the galvanic current. I am constantly in the habit of making use of this treatment and can testify, from an extended experience, to its advantage. Galvanism stimulates absorption of the pigment and is, for that reason, far preferable to the use of drugs, after which the pigment is often reproduced in the new cuticle. The results from galvanism are more uniformly permanent.

THE IMPORTANCE OF EARLY RECOGNITION AND TREATMENT OF OBSTRUCTIVE DISEASES OF THE UPPER RESPIRATORY TRACT.

Read before the Philadelphia County Medical Society, March 14, 1894.

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The introduction of a subject so time-worn and stale might require an apology were it not that notwithstanding there is a plethora of literature there still remains a singular indifference and lack of appreciation of the merits of the matter in the mind of the general practitioner. Doubtless much of this is due to the very voluminous character of the literature, which tends rather to interest those for whom the subject has an especial attraction. We read much of the histologic structure of the various hypertrophies, and numerous are the instruments introduced for their destruction. We read less of the best means of demonstrating their existence, the etiologic factors concerned in their production, and the prophylactic measures which may be adopted to prevent their development.

Perhaps no single abnormal condition is productive of more marked alterations in physical beauty and healthy functions than diseases producing obstruction in the upper respiratory tract. The anxious

and watchful mother views with sorrow the freckling or tanning of her child's face. How much more disagreeable than these are alterations in the facial lines to such degree as to cause a face to be expressionless ; and when to this is added partial deafness, with all its unpleasant effects, we have a picture which any careful mother should strive to avoid. Were as much care bestowed on the important functions of the nasal chambers as is generally given to the skin or other tissues more directly under the eye, we would have fewer of these unpleasant pictures. Nor is this marring of physical beauty the sole deleterious result of these conditions; it can be proven that serious and perhaps grave interference with important functions follow in its wake.

In order to have a proper appreciation of the importance of the subject we will review for a moment, and in a cursory manner, the anatomic structure and physiologic purposes of the nasal chambers and their contiguous structures.

In the bony nasal chambers are three scroll-like bodies, the turbinate bones, two of which, the middle and inferior, are accessible in the living subject, which form the sides of the chamber; a septum, separating the nasal chambers, which is reinforced by a plate of cartilage in the recent state. These turbinated bones divide the nasal chambers into three meatuses—superior, middle, and inferior—into which open the various sinuses or foramina which communicate with the accessory cavities—namely, the frontal sinus, the ethmoid and sphenoid cells, the antrum of Highmore, and also the lachrymal duct. All these structures in the living subject are covered with mucous membrane well endowed with blood vessels and nerves, whilst over the turbinate bones the tissue is erectile or cavernous.

The situation of these chambers, the peculiar construction of the bones, the unusually large surface of mucous membrane for so small a cavity, and the very generous blood supply, bespeak important functions. Bosworth claims three; 1 the first and very important function in respiration; 2, an aid in phonation by acting as a resonant chamber; 3, as an olfactory organ.

The atmospheric air as it passes through the nasal chambers is brought in contact with a comparatively large surface of mucous membrane which is rendered warm by the free blood supply and moist from the secretion of the numerous mucous glands therein contained. The effect of this contact is first to abstract from the air, dust and other foreign bodies, and secondly to add to the inspired air warmth and moisture. This latter function is most important. It has been computed that over 7,000 grains of water are expired from the lungs in twenty-four hours; and Aschenbrandt has demonstrated by a series of carefully conducted experiments that the source of this moisture is in the nasal chambers.

From this brief and very imperfect glance at the anatomical position and functional purposes of the nasal chambers we may draw a few important lessons. Interference with the proper and easy inspiration of air through the nasal chambers is productive of diseased conditions, not alone of those organs themselves but of the more important respiratory structures within the chest.

It can not be doubted that inspiration of air into the air vesicles imperfectly warmed, deprived of the moisture which Nature intended it should have, must exercise a deleterious influence on the delicate mucous membrane lining these cells. I am not ready with statistics to prove the relationship between pulmonary and bronchial affection and obstructive diseases of the upper air tract, nor do I deem it necessary, for it is a matter of common experience and observation that those children whose nasal chambers are obstructed either directly by hypertrophies, polyps, etc., or indirectly by hypertrophied pharyngeal or faucial tonsils, are sunken-chested, prone to attacks of acute bronchitis and coryza, and in many respects are less healthy than other children. I am well aware that these conditions are often the result of a constitutional vice which in itself renders the subject less robust, still I am more than ever convinced that removal of the local effects of this diathetic condition results more effectually in a return to a normal condition than any plan of treatment directed solely to the condition itself. Nor is it alone the respiratory tract that suffers from these abnormal states. I have before remarked that children so afflicted are apt to be in a condition of poor health generally, and it has occurred to me that perhaps this may be not entirely due to the diathetic condition which is so frequent a concomitant, but rather that the lungs, being supplied constantly with a vitiated air, *i. e*, air insufficiently warmed and moistened, failed to supply the blood with a healthy, proper pabulum and hence the tissues suffer. By the explanation what it may, we must not lose sight of the fact that a condition of ill health frequently does exist, and we should bend our energies to ascertain the cause and seek its remedy.

It is not the object of this paper to elaborate on the various methods of treatment, but rather to inquire into the causation and to endeavor to point out, means which may be taken to ameliorate the conditions existing and to prevent the development of more serious ones. Especially is it desired to inquire into the causative influences of obstructive diseases of the upper air passages in young children.

Eliminating all those effects of imperfect or perverse fetal development such as occlusion of anterior or posterior nares, cleft palate, etc., we have conspicuously prominent in the category of obstructive lesions in the upper respiratory tract—hypertrophic conditions of the turbinate bodies, of the pharyngeal, faucial, and to a lesser degree the lingual tonsil.

A glance at the records of any of our large throat and nose clinics will convince one that these abnormal conditions are far from rare; nor does even this showing give us a thoroughly accurate conception of their frequency. Too common is it to ignore or carelessly treat the various catarrhal symptoms presented to us, and this indifference on the part of the profession has led to a corresponding indifference on the part of the laity, so that only those cases of pronounced obstruction are brought to the notice of the general practitioner. Were the nasal speculum used as freely as the stethoscope or clinical thermometer we would be astonished at the result. Again, certain hypertrophic conditions have but comparatively recently received any measure of attention from the profession. Though faucial hypertrophies have been observed and studied from remote times, it was not until a very recent date that Meyer gave to the profession a clear idea of the significance of hypertrophic conditions of that collection of adenoid tissue

at the vault of the pharynx known as the pharyngeal tonsil; nor is the importance of the subject to-day appreciated by the rank and file of the profession, notwithstanding that much has been written about it and many instruments devised for its removal. Situated as it is in a somewhat inaccessible or rather unobservable portion of the upper pharynx, it is only by the use of the rhinoscopic mirror that its presence can be clearly demonstrated; this being the case, it is patent that it must be frequently overlooked.

With these facts before us it is clear that, whereas our clinics show us that these states are common, they give us no adequate conception of their prevalence.

At the clinic of the Episcopal Hospital it is the custom to carefully examine the nasal cavity, the pharynx, and post-nasal surfaces in every case that applies for treatment, irrespective of the fact that the subjective symptoms point to lesions in this or that locality; and in children of tender age, where a rhinoscopic examination is not feasible, if there is any suggestion of disease in this locality a finger is introduced back of the soft palate and over the vault of the pharynx to demonstrate by tactile sense the presence or absence of any abnormality. It is surprising as a result of this procedure to note the number of cases in which there are lesions of the upper pharynx in which the symptoms have been overlooked by the parents.

In considering the etiology of these hypertrophies it is as well to treat of them collectively, for whereas they are often separate and distinct lesions and exist independently, they are often associated and their etiology, so far as our knowledge goes, is in many respects similar.

In the case of the glandular tissue there can be no doubt that in a few instances these hypertrophies are congenital, doubtless the effects of an inherited vice—syphilis or scrofula—carrying out the well-known tendency of these dyscrasiæ to affect lymphatic and glandular tissue. Though this view is combated by no less an authority than Meyer, who leans to the view that it is always an inflammatory process in a tissue which normally is largely developed in infancy and childhood, at the same time it is difficult to explain the presence of this state in very young infants unless we presume this inflammatory process to have taken place during its pre-natal existence. Those cases developing subsequent to birth doubtless have as a starting-point an inflammatory or catarrhal origin.

We have demonstrated the frequency of hypertrophies of the glandular tissues and turbinates in children, and have admitted a few cases may be congenital, which leaves the vast majority to have its development subsequent to birth; and, as it is our belief that its causation lies in some condition outside of the child, at least in part, it is now our endeavor to seek out those causes and, if possible, lay down certain laws looking to their eradication or, at least, amelioration. Here, as with many other diseases of insidious approach, an early recognition is productive of much good.

Among the general causative agencies which it is not entirely within our power to relieve, may be mentioned atmospheric conditions incident to residence in temperate climes, and especially near the seaboard; the method of heating houses in cities by dry air frequently derived from an unsanitary source; carelessness in the dressing of infants and trusting them too much to the care of servants who unnecessarily expose them. All these and others exercise an influence in the production of the disease, but only in a general way. The prophylactic remedies are obvious and suggest themselves.

The various catarrhal conditions which the above enumerated disturbing influences of our environment occasion, are of much importance from an etiologic standpoint. There can be no doubt that it is here we have the starting-point of the hypertrophic process. A simple coryza is neglected; the child is not even protected from the causes which produced it—the result, one coryza succeeding another the entire season. The effect of a long-continued inflammatory process is precisely the same in the nasal and pharyngeal tissues as in the other tissues of the body—namely, increase in the connective-tissue growth, increase in the cellular growth. And it is just here by a knowledge of the effects that the family physician's advice and council can be of so much value and save so much misery and suffering to the child—so much mental anxiety and mortification to the parents. I believe that parents should be taught that a coryza is by no means so simple or harmless an affair as is commonly believed. It is better to err on the right side—better by far to give some attention (possibly needless) to a few attacks of coryza than to sit quietly by doing nothing, and permitting the production of obstructive masses in the upper air-passages that may alter the child's expression and possibly injure the health.

Parents should further be taught that repeated coryzas indicate a diseased condition of the nasal or pharyngeal mucous membrane demanding prompt and thorough treatment. The physician should himself insist on making a careful examination aided by the nasal speculum and rhinoscopic mirror, and should lay down a plan of treatment which his ingenuity will suggest, and persevere with it until the conditions yield; and I believe in this way, and in this way alone can we hope to have any measure of success.

Conspicuous in the category of special causative agencies may be mentioned the eruptive diseases of childhood, and especially those in which the fauces and nasal chambers are involved in the diseased process. Foremost among these may be mentioned diphtheria. The well-known tendency of diphtheritic processes to attack glandular tissue is well exemplified in the post-nasal spaces. We are familiar with the appearance of the diphtheritic membrane on the tonsils, but usually the examination of the other mucous surfaces is not made, and we remain in ignorance as to the extent of this process into the nasal chambers and vault of pharynx. Doubtless if careful examination was carried out in every case we would find the proportion in which these structures are involved to be very large. I have no doubt that many of the cases of so-called re-infection are in reality those in which there has been an involvement of the pharyngeal tonsil in the diphtheritic process. When an examination of the tonsils reveals an absence of the familiar membrance and a subsidence of the inflammatory condition, we are lulled into a sense of security and perhaps relax in our vigilance, unmindful of the fact that the disease is perhaps making insidious inroads at a spot beyond our unaided view. However, we are not concerned with this at

present; sufficient is it for us to know the extreme susceptibility of the mucous surfaces in this disease.

After the subsidence of the diphtheritic process it is very common to have a catarrhal condition continuing for a considerable period; this is especially noticeable in cases in which the nasal mucous membrane has been implicated; though it frequently occurs where there has been no perceptible involvement of the nasal chambers, and I believe it is just in these cases that there has been a diseased process going on at the vault of the pharynx. The explanation of this mucus discharge and other evidences of a catarrhal condition is doubtless due to alterations in the nutrition of the part, in consequence of the high grade of inflammatory action, and also to septic absorption. Were an examination made at this time we would likely find a hypertrophic condition either in the nasal turbinates or the pharyngeal and faucial tonsil. Though doubtless the majority of these cases do well without any special treatment directed to the part, yet in a certain number the catarrhal condition persists, and especially is this likely to occur in those children who seem prone to catarrhal states, and the foundation is laid for the formation of masses of hypertrophied tissue.

The beneficent offices of the family physician can be here admirably employed. It is not wise to pass over lightly the persistence of a catarrhal state after the subsidence of the inflammatory symptoms. Treatment employed at this time and persisted in until an amelioration takes place, can be productive only of good.

Scarlatina, as is well-known, expends at least a part of its energy on the mucous membrane of the fauces; though, unlike diphtheria, it rarely involves the nasal chambers. Here, as in the foregoing, the inflammatory action is so high, often to the production of false membrane, as to exercise a baneful influence upon the nutrition of the tissue and aid in the production of hypertrophies. We are all familiar with the fact that hypertrophies of the faucial tonsils are a frequent sequela of this disease. The same process that gives rise to hypertrophies in this tissue is at the same time exerting its influence on the tissues of the vault.

It is needless to dwell on this; the too familiar sight of catarrhal conditions as sequelæ of scarlatina precludes any argument to the contrary as to its position as a causative agent in the conditions under consideration. Nor is it hardly necessary to refer to the necessity for prompt treatment—one word, however, on this point. It seems to me an imperative duty on the part of the medical attendant to insist on an examination and, if necessary, subsequent treatment in every case where a catarrhal condition evidenced by a mucous or muco-purulent discharge from the nose, a thick voice, and mouth-breathing persists, after all evidences of the exanthemata have passed away.

Measles, though commonly regarded as a light and insignificant disease, is exceedingly apt to leave some trace of its existence. The explanation of this is evident. Not commonly menacing life, it is, however, very active in its attack, and this activity is exerted on the mucous surfaces in the entire respiratory tract. Mothers should be informed of the fact that with care the course of the disease will be benign, but without it there is extreme probability of a catarrhal affection with all its unpleasant consequences being left as a sequela. And here, as with others, active treatment should be insisted upon if the catarrhal symptoms persist after the subsidence of other evidences of the exanthemata.

The other exanthemata and febrile diseases, such as rötheln, variola, varicella, typhoid fever, etc., exert a certain amount of influence as causative agents, but only in a general way, as any alteration in health will do. The diseases mentioned, viz., diphtheria, scarlatina and measles, exert a special influence because the diseased condition seems to expend itself on the mucous surfaces, producing alterations and perversion of function.

The clinical picture presented by sufferers from obstructive diseases of the upper respiratory tract is absolutely characteristic, and especially is this true as regards the alteration of facial lines and changes in expression. Naturally this obstruction to the entrance of the air by the normal route, viz., through the nose, necessitates its seeking some other mode of ingress to reach the lungs; the only other way is through the mouth, and hence we have the condition of mouth-breathing with all the discomfort and unpleasant effects which such a condition entails. Long-continued mouth-breathing brings into play muscles about this orifice not usually called upon for excessive work, and at the same time nominally puts at rest muscles about the nose whose functions are not called into play; the result is an alteration of facial expression to such a degree in well-marked cases as to give to the child a stupid, almost idiotic appearance. The obstruction in the case of the pharyngeal tonsil may become so excessive as to encroach on the pharyngeal orifice of the Eustachian tube, interfering with the proper supply of air to the tympanic cavity, thus inducing catarrhal or inflammatory conditions of the mucous lining of this tube and also of the tympanic chamber. The result of this is dullness of hearing or even complete deafness.

The normal course of the secretion from the numerous mucous glands in the nasal chambers is obstructed and hence flows back into the naso-pharynx; added to this we have a greatly increased secretion from the adenoid vegetations at the vault. During sleep this mucus collects in the pharynx, and as the child is obliged to breathe through the mouth, we have associated loud snoring with rattling and gurgling of air through the mucus secretion; hence the child is restless and fitful and the annoyance to other members of the household excessive.

We have then as the salient features of a case we are attempting to portray: Mouth-breathing, snoring, rattling of mucus in the fauces, and disturbed sleep; a dull, listless expression of countenance; hardness of hearing, and in many cases impairment of general health, causing the child to be anemic, sunken-chested, prone to catarrhal attacks, and of stunted growth.

Much has been written and various are the opinions as to the treatment of these distressing conditions. We are not concerned in this article whether it is the proper method to remove adenoid growths by forceps, curette, or finger; to diminish hypertrophied turbinates by means of galvano-cautery, snare or escharotics, but a few words in conclusion as to the management of cases in their incipiency may not be amiss.

Mothers should be urged not to neglect a persistent snuffle in a child, not to regard as trivial the con-

tinuance of a mucus discharge after diphtheria or the exanthemata. Physicians, on the other hand, should not pass these complaints lightly by ignoring them, or directing in an indifferent manner some simple and likely inefficient remedy.

The management of hypertrophies at this early stage is as simple as the results are happy. After a careful examination the nares and upper pharynx should be cleansed of mucus by an antiseptic and detergent spray, *e. g.*, Dobell's solution, Seiler's tablet, Listerin in diluted solution, etc., and then applications made to the affected mucous membrane of an astringent or alterant, depending on the condition of the parts. Should we find simply an increased secretion with no appreciable alteration in the turbinates, tonsils, and surrounding tissues, it is likely we will accomplish all that could be desired by directing spraying of the nares thoroughly by one or other of the solutions mentioned twice daily and continued faithfully until the membrane presents a normal appearance and the secretion ceases.

In cases still farther advanced in which we find the turbinates quite red and somewhat swollen; the pharyngeal tonsil secreting more mucus than normal, and rather large; the faucial tonsil red and somewhat hypertrophied, we will find it advantageous to use some application to diminish the inflammatory condition. These applications may be made quite painless by spraying the parts with a 5 per cent. solution of cocain or introducing a cotton tampon saturated in the same solution. In the nares a solution which has gained favor in the various clinics devoted to these diseases is that of iodin. The strength of the solution may be graded by the severity or obstinacy of the case. It is well to begin with a weak solution, increasing the strength as the necessities of the case demand. In some cases which resist this plan of treatment a touch of the fused bead of chromic acid along the turbinates will often accomplish the desired object; this latter plan should be immediately followed by the antiseptic spray to dilute and limit the destructive power of the escharotic. It is merely necessary in these early cases to touch the mucous membrane lightly to produce a superficial eschar; the resulting slough and subsequent contraction will so squeeze the blood vessels as to bring about the desired diminution in the size of the tissues.

The pharyngeal tonsil also in many cases will respond satisfactorily to applications of iodin on a pledget of cotton carried by an applicator so curved as to pass readily behind the soft palate and up to the vault. Glycerole of tannin has been found to act very happily, though perhaps a little more unpleasant in its effects. The application of chromic acid (fused) to a pharyngeal tonsil should not be advised, though undoubtedly as useful as in the nose, unless the operator is steady and familiar with making applications by the aid of the rhinoscopic mirror.

It would be hardly necessary to refer to the treatment of catarrhal and slight hypertrophic conditions of the faucial tonsils the result of the causes named, were it not that here, in spite of the ready accessibility of the part, they are subject to neglect. The same process of cleansing is as necessary as in the other hypertrophies, after which an application of a solution of 60 gr. to the drachm of nitrate of silver, glycerole of tannin, or in stubborn cases producing a superficial slough by fused chromic acid, will probably answer every purpose.

In the more advanced cases or in those which fail to respond to the above-outlined plan of treatment and a steady increase of the hypertrophied tissues occurs, there is but one plan which should be carried out at as early a date as possible, namely a destruction of the hypertrophied tissue. The various plans to accomplish this object will not be touched upon, but can be readily learned by consulting any of the modern treatises devoted to the treatment of diseases of the nose and throat.

In recapitulation the object of this paper has been to call attention to the following points:

1. The importance and desirability of early attention to diseases of the upper respiratory tract consisting of the nose and naso-pharynx.
2. The production of alteration in nutrition and possibly pulmonary and bronchial troubles by hypertrophic conditions of the upper respiratory tract.
3. The etiology of these states referring to the influence of environment and especial mention of diphtheria and the exanthemata as prominent factors in this category.
4. The prevalence of these conditions.
5. Carelessness and indifference in both physician and patient as to the various catarrhal states which are believed to be the precursors of the diseases under consideration.
6. The necessity of early treatment and the power for good exercised by the family physician in these troublesome conditions.
7. The clinical picture presented by these unfortunates, laying especial stress on the alteration in facial expression and the distressing and annoying condition of the child during sleep.

TREATMENT OF DIPHTHERIA.

Read before the Wayne County Medical Society, 1894.

BY OSCAR S. ARMSTRONG, M.D.

DETROIT, MICH.

There is no disease with which we have to contend that requires better surroundings or greater care in its treatment to insure a successful outcome, than diphtheria. It is rightly dreaded as one of the most deadly foes of childhood, and even adults do not escape its attacks. It is a treacherous disease, and one or two members of a family may have it in a mild form, while in the remaining children it may present its most malignant characteristics. Nor does its treacherous character end here, for often when our patient seems to be doing nicely, with membrane entirely gone, pulse and temperature normal and everything progressipg favorably, some of its dangerous sequelæ make their appearance.

The first record we have of diphtheria in America was the epidemic in Boston in the sixteenth century, since which time it has become completely domiciled. Originally the disease appeared in epidemic form only, but at the present time it has become essentially endemic in nearly all our large centers of population. Its ravages are not confined to the homes of the poor in overcrowded and filthy tenement houses, but extend to those of the wealthy in country and city. Until the last few years little was understood of its true nature, but pathologists by careful and patient investigation have discovered its cause. Klebs was the first to demonstrate the existence of a specific bacillus of diphtheria, and his conclusions were afterwards confirmed by Löffler. Experiments have proven that

the bacillus of Klebs-Löffler, when brought in contact with the mucous membrane or inoculated therein, will produce a true diphtheritic membrane with its accompanying constitutional symptoms. We are thus prepared at the present time to treat diphtheria from a more intelligent standpoint than ever before. Yet notwithstanding this fact, from statistics which I have been able to collect, the mortality is simply frightful, and if an epidemic prevailed in any of our cities in which the death rate was correspondingly so great, it would, I venture to assert, create consternation not only among the laity but the profession as well. It seems to me that we have become so accustomed to its pestilent presence that we accept its frightful mortality as something unavoidable, and it has ceased to alarm us.

To quote from an interesting paper in the last JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, by Dr. E. L. B. Godfrey, of Camden, N. J., on the "Treatment of Diphtheria," there were 2,624 cases of diphtheria reported to the Board of Health of Philadelphia from January 1 to October 28, 1893, with 750 deaths, making a death rate of 28.5 per cent. During the same period in Camden 250 cases were reported with 56 deaths, making a death rate of 25 per cent. During the year of 1892 there were reported to the Board of Health of Detroit 1,156 cases, with a death rate of about 26.5 per cent. For the present year I have been unable to secure the statistics, but Dr. McLeod, the Health Officer, assures me that the number of cases has decreased about 40 per cent. as compared with 1892.

It would seem apparent from the diverse opinions and methods of treatment that no specific has yet been discovered. The symptoms in the early stages are so closely allied to those following the contraction of a severe cold that many times parents are misled, and do not call their physician until the disease is thoroughly intrenched. Every family physician ought to instruct father and mother how to examine their child's throat, and whenever he (or she) complains of sore throat or gives evidence of it by symptoms such as languor, headache, fever, etc., it ought to be inspected and if inflamed or white spots show, the physician summoned at once to make a diagnosis and care for the case. In the autumn of 1891 I had under my care three cases of diphtheria in a family of five children all making favorable progress. One day when making my morning call I was asked by the mother to see a fourth child, a little girl 3 years of age, whom she said was not well. On examining the child's throat I found it literally full of diphtheritic deposits of a purple hue. Fauces, tonsils, uvula and soft palate were covered and the tissues necrosed, the offensive odor being almost unbearable. The countenance was suffused, eyes dull, stupor manifest, temperature 106 degrees F. and pulse so rapid it could not be counted. It was a case of diphtheria of the most malignant type. I gave a very unfavorable prognosis and asked for a consultation. During the afternoon I saw her again with my friend, Dr. Mulheron, a gentleman of experience in this class of cases. All we could do for our little patient availed nothing and she died the same evening, about twelve hours after I first saw her. Since that time I make it an invariable rule to see every child in the house in which I am treating a case of diphtheria, at each visit.

The period of incubation in diphtheria varies from two or three days to a week. If the attack is mild the symptoms are at first hardly perceptible. There is usually slight chilliness followed by fever, thirst, headache, anorexia, furred tongue, more or less muscular soreness and a certain amount of rigidity of the muscles of the neck and throat. There are undoubtedly cases of the disease so mild that they are not recognized, and the little one associates with his playmates and conveys to them the virulent germ. In this manner many children acquire diphtheria, leaving us ignorant of its method of introduction. If the attack is malignant in character its advent will be marked by correspondingly severe symptoms. It does not follow, however, even in the worst forms that the patients will complain of sore throat. This one diagnostic point will often enable us to differentiate between it and tonsillitis, for in the latter the pain on deglutition is generally much greater.

A large and well-ventilated room should be chosen, and the carpet or rugs, upholstered furniture and curtains removed. The most favorable temperature for my patients has been 68 degrees F. The disease being at first local and afterwards constitutional requires both forms of treatment. During the past two years I have adopted a plan of treatment that has given me excellent results in *every case*. The first and most important thing for the physician to do is to get the good will and confidence of his little patient. When this is done half the battle is already won. When the little one is willing and anxious to do as you direct, you are enabled to conduct a case as satisfactorily with a child of 4 or 5 years of age as though he were an adult. On the contrary, if a spray or gargle has to be forced on the unwilling patient with nerves wrought up to the highest tension, medication, no matter how well considered, is of no benefit, and I believe is positively harmful. The patient should be put to bed and made to understand that the recumbent position is a necessity and that this rule must not be violated by any exertion of his own. When it is necessary to use the spray, gargle or swab, he should be supported in a half reclining position by the nurse. The rule applies with equal force when nourishment or medicine is given.

As a local application I have found nothing that approaches in value the peroxid of hydrogen. It may be used as a gargle or spray or held for a few moments in contact with the membranous deposit by means of a swab. I use it varying from 30 per cent to full strength, the latter only when it is applied directly to the exudate. Children use a 30 to 50 per cent. solution as a gargle or spray, without any discomfort or objection. When the tonsils are enlarged and painful, the throat is covered by a a piece of soft flannel moistened with a hot mixture of equal parts of lard and turpentine, enveloped by a thick fold of wool cotton held in place by a bandage. If the throat is not painful the turpentine and lard are omitted.

The medicines most in vogue in past years for internal administration have been the tincture of the chlorid of iron, sulphate of quinin and chlorate of potassium, all of which are more or less disagreeable to the taste and require a great deal of persuasion to get the little sufferer to take them. During the past two years I have used the bichlorid of mercury internally, in all my cases of diphtheria, as a routine plan of treatment and with unvarying good results. I combine it with alcohol, glycerin, eucalyptol and

minute doses of arsenic, in a strength varying according to the age of the patient. It may be given in doses of one-fiftieth to one-sixtieth of a grain to a child of 3 years, every two hours. For the past year I have been using it as prepared by the Detroit Chemical Company, containing one-sixtieth of a grain to the drachm. The preparation is known as diphtherol, and is combined with pleasant aromatics so that children take it without the slightest difficulty. Due credit must be given to the alcohol which this remedy contains, for in a disease so depressing to the vital centers and in which the toxemic symptoms are so pronounced, supporting and stimulating treatment ought to be pursued from its commencement. The effect of the treatment with the bichlorid is truly remarkable, and I have seen cases that I, at my first visit, deemed hopeless, improve so rapidly that in twenty-four hours the crisis was passed. It ought to be given freely until its constitutional symptoms appear, when the frequency of administration should be lessened. In very bad cases I have given 1 drachm of the diphtherol every hour for the first day, or until the constitutional effects in the way of uneasiness and pain in the abdomen were manifest. When the nasal passages are affected, I use the spray of peroxid of hydrogen solution with great comfort and relief to the patient. It ought to be used as often as every two hours.

Complications may arise requiring the use of quinin, digitalis, strychnin, etc., but they can in the majority of cases be administered in the form of a suppository. Since I have been using the plan of treatment here outlined, I have been fortunate in having laryngeal invasion in but one case. A possible intubation or tracheotomy was averted by forming a tent under which was introduced hot steam medicated with eucalyptol and the application of the hot pack to the neck.

I have thus briefly sought to direct your attention to the use of a remedy that as nearly approaches a specific for the disease as possible. Hoping and believing that you will find as much satisfaction in its use as I have done, I commend it to your favorable consideration.

A NEW APPARATUS FOR NEBULIZING NON-VOLATILE MEDICAMENTS

AND FOR ADMINISTERING THE SAME THROUGH IMPACTED AIR, AS A MEDIUM, BY THE PROCESS OF FORCED DILATATION, INSTEAD OF BY INHALATION, SPRAY, OR DOUCHE.

BY GEORGE F. HAWLEY, M.D.

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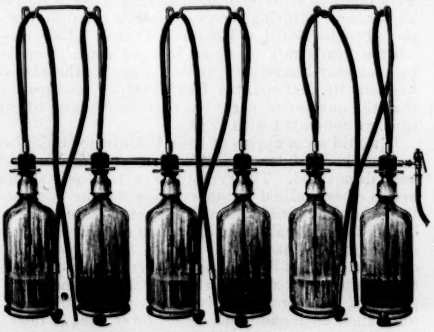
The object of this paper is to describe an apparatus for preparing and administering nebulous medicaments by a process of forced dilatation, the basis of which is the discovery that the lips will act as a safety valve, and that, into any tube, cavity or air cell into which air can be forced by a high pressure, the nebulous medicament prepared by this apparatus can be forced with absolute safety, thereby enabling the physician to use agents that are capable of preventing or controlling diseases.

My attention was first called to this apparatus and process by an expert in the chemical and mechanical phenomena of pneumatics. I am using the apparatus as auxiliary to the regular medical and surgical treatment of the ears, nose, throat, and chest, with decided advantage to myself, and with most gratifying results to my patients.

The apparatus as shown in the illustration consists of a number of strong flint glass bottles, one for each medicament; adapted to be used in connection with any compressed air receiver. The valve located at the top of each bottle is provided with inlet and outlet ports in multiple, both ports being simultaneously opened or closed by turning the faucet. The inlet port of each bottle is connected with the same source of supply, namely, a compressed air receiver, and also with the vulcanite tube that descends into the medicated solution in the bottle. On turning the faucet the impacted air passes from the receiver through the inlet port down the vulcanite tube, through an ingeniously constructed device, and by eduction draws the medicated solution up into the tube and forces it out against the interior wall of the bottle, thus producing an impacted, nebulous medicament. To the outlet port is attached a silk covered, flexible tube, the free end of which terminates in a vulcanite mouthpiece adapted to become sealed when the lips are tightly compressed around it, also an adjustable nozzle which becomes sealed when pressed into the nostril. Through these tubes the impacted-medicinal-nebula is forced into all the air passages, cavities and cells through and from the bottle selected; by a process of forcible dilatation, —a process that is rational, and capable of producing results that can not be effected by the use of any apparatus adapted to administer by inhalation, spray or douche.



The process of administering consists of: 1, compressing the air or gas into a suitable receiver to a pressure of from 20 to 100 pounds to the square inch or to a density sufficiently great to rapidly fill and forcibly dilate the air cells, the bronchi, the nasal cavities and the Eustachian canals by the expansive force of its own elasticity; 2, forming a communication through suitable tubing to be placed in the mouth or nose in such a manner as to allow the excess of pressure to escape from the mouth. The bottles containing the medicated solutions, being located intermediate and through which the compressed air passes at a uniform pressure with that in

the receiver, or nearly so, and conveys the medicinal nebula to all the air passages, cavities and cells.

To dilate the Eustachian tubes and to medicate the middle ear. The usual method of using the apparatus is as follows: Having adjusted the nozzle to the delivery tube, press it snugly into one nostril, the other being closed by the patient's finger, the mouth being open and the tongue thrust out as shown in Fig. 1. Turn the faucet and allow the impacted nebula to flow freely. The soft palate being pressed forcibly against the posterior wall of the pharynx will cause an undulation in the current of nebula by a valvular action of the uvula velum and appendages, which will be thrown into rapid vibration. The undulations of the impacted nebula will render the mouth of the Eustachian tube more patent and act as a massage on the diseased tissues of the middle ear, equalizing the circulation and tending to break up adhesion of the ossicles by causing them also to vibrate. To produce these vibrations it will be necessary in rare cases, especially where there is marked obstruction in the Eustachian tube to have a pressure in the receiver as high as 70 to 100 pounds to the square inch. With this shunt current, the mouth being open, no matter how high the pressure, it is impossible to rupture the drumhead, or to injure the ears.

FIG. 1.

FIG. 2.

A pressure, however, of from twenty to forty pounds will be sufficient for a large majority of cases.

Stimulation by appropriate medicaments in connection with mechanical manipulation, by increasing nutrition restores elasticity and vitality to the atrophied and paralyzed tissue. This process of administering impacted medicinal nebula by a shunt current, offers a rational means by which such stimulation, manipulation, and massage can be accomplished without any liability to unfavorable consequences.

In my practice, however, in massaging the diseased, paralyzed, atrophied or hypertrophied tissue and in dilating the Eustachian tubes and in medicating and breaking up adhesions in the middle ear, the best results have been obtained by using a pressure of from thirty to fifty pounds. The lips of the patient being tightly compressed, the nozzle is adjusted snugly into one nostril, the other being open as shown in Fig. 2. The soft palate being pressed against the posterior wall of the pharynx, turn the faucet and allow the nebulous medicament to flow, the opposite nostril being closed and opened rapidly by alternately pressing and relieving pressure on the opposite nares by the finger of the patient. This should be continued for from one to five minutes, or long enough to cause from 20 to 100 impulses. Each impulse should dilate the Eustachian tubes and convey the medicament to the middle ear. It will also manipulate and massage the ossicles and the adjacent and surrounding diseased tissues thoroughly.

The rapid opening and closing of the nostril gives distinct impulses to the current of impacted nebula as it is forced through the Eustachian tubes, and causes it to act upon the diseased middle ear in the manner as before described. The medication of the middle ear by this method is perfect, as into any tube or cavity into which air can be forced, the medicament from this apparatus will enter in the form of impacted nebula. Not being restricted to the volatiles we can use any soluble medicament and in any strength desired. We therefore have the means of demonstrating the value of medicating the middle ear, in properly selected cases.

Impaired hearing due to congestion, inflammation, or hypertrophy of the mucous membrane, paresis, or occlusion of the Eustachian canals is a prevalent affliction. Improvement generally follows regular treatment, but the number of relapses are out of proportion to the number of recoveries. Why? There surely must be something radically wrong with either the means used or with the methods of using them, or else the results would be more permanent and satisfactory. After repeated failures to obtain satisfactory results many specialists have ceased attempting to medicate the middle ear, except with volatile vapors. The failures are due not so much to the medicament employed as to the manner in which they are administered. Liquid sprays or vaselin oils can not be forced into the middle ear by any ordinary atomizer, used either with compressed air or by hand. The spray is too coarse to enter far into the Eustachian tubes, and the injection of liquids by means of the catheter is more apt to aggravate than lessen the trouble. Vapors from volatile medicaments can be advantageously used in a few well selected cases. But nebula, impacted from non-volatile medicaments and administered by forced dilatation with gentle but rapid vibration, offers the only safe and efficient method for medicating and massaging the middle ear.

In this connection it may also be noted that in the most carefully selected cases for dilatation with the Pulitzer air bag or for dilatation and massage by the usual methods of using a compressed air apparatus, an almost immediate amelioration is often immediately or remotely followed by an aggravation of symptoms. This is evidently caused by the violence of the impulse which suddenly dilates the Eustachian tubes and inflates the middle ear. A shock is produced by the violence of the assault that prostrates the weakened and impoverished tissues. Instead of simply breaking up the adhesions and promoting the physiologic vibrations of the ossicles, the pressure on the contents of the labyrinth is abnormally increased, thereby causing pain, vertigo, and sometimes hemorrhage, and even, occasionally rupture of the drumhead. As an agent for massage, the assaults are too severe. In many cases, instead of equalizing the circulation it causes increased nervous irritation, congestion or inflammation.

The specialist in aural surgery may by the skilful use of an apparatus and process for forced dila-

tation and mild but rapid vibrations, more frequently avoid the annoyance of such accidents, as even its routine use with proper medicaments can never result in an injury to the ears, nor aggravate the symptoms.

To dilate and medicate the nasal and post-nasal cavities: Press the nozzle into one nostril, the other being open, the lips being closed as in Fig. 3. Turn the faucet, no matter how much the passages may be plugged, closed or obstructed by secretion, polypi or hypertrophied membrane, the impacted nebula will be forced through and the nasal and post-nasal cavities will be thoroughly medicated.

To medicate the mucous membrane of the pharynx, tonsils, follicles and post-nasal cavities: Insert the tube well into the mouth, the lips being compressed around it, the nostrils being left open as in Fig. 4; turn the faucet, exhale through the nose, and the impacted nebula will thoroughly medicate all the surfaces. I deem it almost useless to say that this can not be so satisfactorily accomplished by the usual methods.

The throat, the smaller bronchi, and the air cells of the lungs can be dilated and thoroughly medicated, either through the nose or mouth. If it be desirable to administer through the nose, press the nozzle into

FIG. 3.

FIG. 4.

FIG. 5.

FIG. 6.

one nostril, close the opposite nostril and compress the lips as in Fig. 5, or if it be desirable to administer through the mouth, having removed the nozzle, place the tube in the mouth, the patient compressing the lips tightly around the vulcanite; the nose being closed by the thumb and fingers as in Fig 6. In either case having first expelled the air from the lungs by a forced expiration, turn the faucet, and allow the impacted nebula to flow, the patient co-operating by a passive inspiratory effort as in the act of taking a long, full, or deep breath, allowing the chest to expand until the internal pressure becomes great enough to force the lips apart and the impacted air to escape explosively.

The explosive escape of the compressed air is an evidence of a thorough dilatation. It also assists to detach, dislodge and expel from the air cells, the bronchi, the throat and nose, such deposits as result from excessive secretion or other morbid processes, together with a per cent. of the residual air.

It should be borne in mind that this is not inhalation but dilatation. The difference between inhalation and dilatation is, that inhalation like breathing, is the act of the respiratory organs requiring, however, a more active inspiratory effort, while dilatation is carried out by the operation of the apparatus, together with a mild or passive inspiratory coöperation, and the mechanical force of impacted air. Consequently, a reliable automatic safety valve is necessary to insure the patient against any liability to injury from an excess of pressure. For this purpose no other device than the lips of the patient is required. The lips will act in any condition of health or disease as a safety valve, as it is impossible to retain a pressure sufficiently high by compressing the lips to cause an injury to the most delicate or the most robust person. It is equally impossible to rupture vessels, to lacerate or to injure the most delicate lung tissue because the pressure is equal on all surfaces. As an evidence of absolute safety, clinical experience has shown that forced dilatations will check passive hemorrhage; the pressure forcing the blood back, the medicament astringing and healing the surfaces. Also that forced dilatation is well borne by the very feeble, to whom it is an exhilarating tonic, affording all the benefits derived from the most labored respiratory efforts and lung gymnastics without fatiguing exertion.

Believing it necessary to emphasize the importance of thoroughly dilating the lung, I therefore repeat that the patient must coöperate by tightly compressing the lips, expanding the chest and allowing the impacted nebula to flow into the lungs until the internal pressure forces the lips apart, allowing the impacted air to escape explosively.

The discovery that the compressed lips will act as a reliable automatic safety valve, rendering it absolutely safe to dilate to their utmost capacity the smaller bronchi and air cells of the lungs by the expansive force of highly condensed elastic fluid; and that non-volatile medicaments in appreciable quantities can thus be conveyed and deposited by impacted nebula into any tube, cell or cavity, into which air can be forced, does as an experimental basis open a new field and marks a new era in the treatment of the respiratory organs. This may engage the attention of clinical investigators and observers in the medical profession at an early date, and lead to the cure or control of tubercular consumption. This is the more probable in view of the well-known fact that highly condensed air by rapid expansion lowers the temperature and desiccates the surrounding tissue, absorbing therefrom heat and moisture; conditions necessary for the vigorous activity and rapid propagation of the bacilli and other mi-

croörganisms, without which they become inert and sterile through attenuation.

By comparing this with other apparatuses and methods, its value will become more apparent. Dr. Waldenberg's apparatus, with improvements and modifications by Prof. Solis-Cohen, and others, is used to moderately condense or rarefy the air preparatory to inhaling it. The expansion of the chest is brought about by labored respiratory effort and lung gymnastics. Forced dilatation is not an element or part of the method. The only claim is an imitation by mechanical means, of the atmospheric condition met with in a change of residence from valley to mountain, or from mountain top to valley. In the published descriptions of the apparatus and the method of using, no reference is made to forced dilatation nor to the explosive expulsion from the bronchi or air cells of the accumulation and deposits from morbid processes, and of the residual air; nor of the absorption of excessive heat or moisture, nor of medication beyond that accomplished with any good inhaler.

The pneumatic cabinet offers the only other means for dilating the smaller bronchi and the air cells of the lungs. This is accomplished by the use of the cabinet but not by the Waldenberg or any similar apparatus. Although dilatation by the cabinet may be complete, the medication is not complete, from the fact that exhalation is but partial, due to the inability of the patient to thoroughly exhale against the pressure. Nor do we obtain by its use the benefits derived from the absorption of heat and moisture, and the explosive expulsion of morbid deposits and a percentage of the residual air. Consequently, the bacilli are not so thoroughly attenuated and the capacity of the lungs is not so greatly increased by the use of the cabinet as by forced dilatation with impacted air; nor is the physiologic function in the processes of osmose so effectively promoted.

The advantages of forced dilatation with impacted air in the treatment of the respiratory organs is patent, for the reasons that the physician after selecting the medicament, either according to the law of natural selection, or for its remedial or physiologic action, can dispatch it in the form of impacted nebula along lines, the obstructions of which would offer an impassable barrier to inhalation. At the same time the benefits resulting from the absorption of heat and moisture, the attenuation of the bacilli, the checking of passive hemorrhage, the expulsion of morbid product and a moiety of the residual air, together with an increase in the breathing capacity, the restoration of the physiologic function in osmose and a more perfect oxidation in the processes of nutrition and assimilation, can be obtained through the mechanical elasticity of the impacted nebula.

The process of preparing and administering nebulous medicaments from this apparatus into the air passages, cells and cavities by forced dilatation is rational. The mucous membrane throughout being upon the stretch with all its convolutions unfolded, as a result of the expansive force of the impacted air, is in the most favorable condition for the reception and absorption of the infinitesimal particles of medicament that are conveyed and deposited by the impacted nebula. Thus maximum effects result from a minimum of medicament.

Among the many advantages may be mentioned the fact, that an increased amount of air is breathed after forced dilatation, and that, too, without conscious effort, which must result in increased oxidation, and therefore must aid in the chemical and physiologic processes of assimilation and nutrition. The improvements in the general health of those treated is an evidence of this, the improvements being so marked as to be apparent to even a casual observer. Hence the claim put forth to the effect that it is equally well adapted to the treatment of other diseases as well as the ears, nose, throat and chest, seems to have a foundation in fact. The capabilities of the apparatus and process of administering are therefore, to say the least, worthy of candid consideration by specialists who limit their practice to other distinct branches as well as by the general practitioner.

My apparatus was manufactured by the Owens Brass and Copper Works of this city, but apparatus can be procured through any dealer in surgical instruments and physicians' supplies.

It was my intention to report the results from the use of this apparatus, but the length of this paper has already far exceeded the usual limit. Therefore the reports of cases must be deferred.

Columbus Memorial Building.

SOCIETY PROCEEDINGS.

The Medical Society of the State of Tennessee.

Held at Memphis, Tenn., April 10 and 11, 1894.

FIRST DAY—MORNING SESSION.

After the Address of Welcome, the reports of the Secretary, Treasurer and Publication Committee were received, and the Committee on Corporation was continued.

Dr. G. C. Savage, of Nashville, asked the indorsement by the Society of a bill to be presented before the State Legislature, looking to the prevention of blindness by the early recognition and treatment of ophthalmia neonatorum. This was unanimously granted after a thorough discussion.

In reference to the proposed change in the Code of Ethics, it was

Resolved, That it is the sense of this Society that the Code of Ethics is good enough for us.

FIRST DAY—AFTERNOON SESSION.

Upon motion the privileges of the floor were granted Drs. Weisynger and McNeal, of Mississippi.

DR. D. E. NELSON, of Chattanooga, read a paper on "Longevity." (See JOURNAL, April 28, 1894.)

DISCUSSION.

DR. D. D. SAUNDERS, Memphis, thought a man should live one hundred and five years, which is five times twenty-one years, the length of his maturity. The people in the Arctic regions wash their children in urine, and there are old people among them, notwithstanding their hardships and bad hygiene. It is also true that some hard drinkers live to an old age. An acquaintance, "Uncle Billy," aged 90 years, a massive picture of health, strength and power, was an old toper. When asked how many were living who commenced drinking with him twenty years ago, he replied: "Not one." There is the lesson, temperance; temperance in all things is the secret of health, strength, success, and the secret of longevity.

DR. WATERFIELD, Memphis, suggested that physicians should, as far as possible, make object lessons of themselves, as had the previous speaker. There is no controversy in regard to the importance of temperance, but would it not be well to go a little farther and ask why it is that a temperate life in diet, drink, exercise, in psychological action, in everything, is conducive to longevity, and why intemperance in these things is deteriorating? If we would let nothing enter the economy that is not constructive, and will not create force, and if we, as physicians, would teach

the people that whatever else passes the lips is destructive, life would be very greatly prolonged.

DR. I. W. PERKINS, of Henderson read a paper on

FECAL IMPACTION WITH TYPHLITIS.

The paper was the report of a case he had been called to treat for what was supposed to be colic. The patient had been given the usual routine of purgatives, which had been retained but a short time. Upon examination the tenderest spot was found over the ilio-cecal valve. The patient had vomited for twelve or thirteen hours; temperature and pulse high. In ten hours he was again seen, and he had vomited everything taken on his stomach in the meantime. Various things were tried to quiet his stomach and relieve the pain, but all to no purpose. Finally, after a hypodermic injection of morphia, he was given a rectal injection, and after one hour the trouble was all over. The principal point is the position of the last injection and the manner of giving it, using the morphin hypodermatically five minutes before the rectal injection.

(Discussion postponed.)

DR. W. S. SCOTT, Dickson, read a paper on

CHRONIC ENDO-CORPOREAL METRITIS.

The author is of the opinion that chronic endo-corporeal metritis is found as a distinct disease, and explains why we have so many cases of rebellious leucorrhea, dysmenorrhea and sterility. The uterus is seldom found in its normal position between the bladder and the rectum. Normally it is antiflexed. The cause or causes of endo-corporeal metritis are numerous. In the multipara it is most frequently caused by subinvolution. Strumous diathesis, imperfect general nutrition, overtaxation of the system, tuberculosis, frequent parturition, prolonged nervous depression, displacement of the uterus, are some of the predisposing causes. Some of the exciting causes are cervical endometritis, chronic or acute general metritis, pelvic peritonitis, especially from chronic abuse of sexual intercourse, abortion, retained menstrual flow, exposure during and checking the menstrual flow, etc. The symptoms naturally are of two kinds, local and constitutional. The constitutional symptoms are made manifest by the nervous system and the digestive organs. While the latter may be wanting, the former never is. The local symptoms are to be relied upon mostly in making a diagnosis. We almost invariably find pain on pressure over the body of the uterus, enlargement of the organ and leucorrhea. While the disease is not incurable, and we find very few cases of death from it, yet it is a troublesome malady and hard to overcome. If we can succeed in removing all the causes, we can expect a favorable prognosis, but in cases of gonorrheal origin or of purulent catarrh, in which the general health is bad, the prognosis is unfavorable. It is best to use intrauterine treatment freely but cautiously. The therapeutics employed range from the blandest anodynes to the actual cautery. We should be governed by the indication of each case. Sodium chlorid should be preferred in most cases as a vaginal douche as it is purifying in character, convenient and safe. We can not expect improvement until we have depleted the pelvic circulation, and nothing serves so well as a gallon of water at 80 or 125 degrees F. Pessaries are but little help. To deplete the engorged uterus, the local application of glycerin is valuable.

Case 1.—Miss C. M. developed endo-corporeal metritis when 14 years of age. When first seen she had not walked alone for three years. She was a nervous wreck, no appetite, poor in flesh, no desire for company, and had suffered pain almost incessantly for two years. By digital examination the external labias were found to be ulcerated and tender, and the vaginal canal was so much ulcerated that it was not practicable to examine the uterus for three weeks. When examined the uterus was lacerated, dilated and undulated, and from it passed a very offensive muco-purulent discharge. It was curretted with a dull instrument, washed out with a hot carbolized solution, Churchill's iodin freely applied to the entire uterine cavity, and pinus canadenses applied to the external os, and left for twelve hours, and then for three days the sodium chlorid douche was used three times a day. As a tonic she was given the tincture of the chlorid of iron, tincture of nux vomica, fluid extract of ergot, and the fluid extract of black haw. For the first ten days ammonia was administered at bedtime. After two months she could with little inconvenience walk unsupported across the room, and at the expiration of the fourth month she claimed to be well. After two years she had suffered no relapse. Six months later she married, and twelve months later was confined, and died of puerperal septicemia.

Case 2.—Mrs. M. C. D., multipara, age 34, had suffered from endo-corporeal metritis for three years, during which time she was unable to attend to her domestic affairs. Examination showed cephalalgia of the crown, constant pain in the loins and pelvis, vaginal tenesmus, bowels constipated, menstrual flux irregular, painful and profuse, appetite poor, and but little assimilation of food, general relaxed muscular system and inability to sleep. The os was dilated and undulated, and from it poured a profuse leucorrhea, tenacious and tinged with blood. The uterus was enlarged, retroflexed and tender. With the sound the trouble was found to involve almost the whole endometrium. After an intrauterine injection of carbolic acid solution she was curretted and Churchill's iodin applied to the entire uterine cavity. Glycerin and pinus canadenses on lint were applied to the external os, and allowed to remain twelve hours, when it was removed and a sodium chlorid douche used three times a day for three days. Then iodin and carbolic acid were applied thoroughly to the endometrium, and glycerin and pinus canadenses were used as before, the same being repeated every three days. The constitutional treatment included strychnia, ferrum, lactucarium, ergot, phosphorus and black haw. As she had become somewhat of an opium eater, the fluid extract of cocoa was given to overcome it. After three weeks the intrauterine treatment was discontinued, but the local applications to the os, and the douches were continued three weeks, then the douches and a constitutional treatment for two months, when all catarrhal discharge had ceased, the appetite had returned, and there was a general constitutional improvement. The prognosis in the case as to a complete cure was negative, but as to permanent relief positive, and after eighteen months she conceived and passed through confinement without unusual trouble.

DISCUSSION.

DR. RICHARD DOUGLAS.—The endometrium, being destitute of any claims to mucous membrane, is peculiarly susceptible to parenchymatous inflammation, and there is likely more or less metritis in all these cases. That this disease occurs separate and apart from cervical inflammation we must admit, but it usually occurs associated with cervical inflammation. There is sepsis in all these cases, caused by some accident during parturition, some lesion or some remains of placenta or blood clot, incomplete absorption, and last but not least the tinkering gynecologist. We can not treat it without constitutional methods, but we ought to get along with fewer drugs than the essayist mentioned, although they are all useful. Rest is essential, and a life of continence is absolutely necessary. The use of hot water does not more than clean the vagina. The topical application of coagulants to the body of the uterus favors sepsis and extends the disease. The disease resides in the glands, and until the mouths of these are opened, until the endometrium is removed, we can not accomplish much. We must look upon it as a foul stinking sac, and clean it as best we can. We should dilate the uterus, curette with a *sharp* instrument, irrigate well and pack with gauze, remove the packing in from one to five days, repack, and treat the surface of the uterus as if it were an ulcer. The cavity of the uterus should be treated upon surgical principles. It is a question if the first case ever recovered from the endometritis. The other was a beautiful recovery.

DR. J. S. CAIN, Nashville.—Septic and specific troubles probably cause the majority of cases, but many of them grow out of general causes. In those cases in which we find degenerated fungosities, the sharp curette should be used. The aseptic and antiseptic part of the treatment was carefully carried out. The dull curette should be considered less dangerous than the sharp one, because it does not go so deep.

DR. T. J. HAPPEL, Trenton, read a paper on

APPENDICITIS.

Until lately it has been agreed by the surgical world that the knife was the only resort, when there were reasonable grounds upon which to make a diagnosis of appendicitis. Now the surgical world is at sea, and the general practitioner begins to realize that this disease has not entirely departed from his domain.

The Doctor then reported eight cases of typhlitis and appendicitis. In one case death followed within thirty-six hours after the onset of the attack, being apparently due to shock from perforation of the appendix and the development of general peritonitis. In three of the cases pus developed, and was discovered in two of them with the hypodermic needle; but was discharged per rectum in all three of the cases, with rapid recovery in each. In one case only was abdominal section made, and in this case at least one gallon

of pus was discharged. Three of the cases were males, five females; six were white, and two colored. The report served to show that not all cases belong to the domain of surgery, and in none of the six cases that recovered could better results have been gotten with the knife than were obtained by the expectant plan of treatment. However, the knife should be used in proper cases, and where the presence of pus can be proven beyond question, it is not safe to delay operation, although as shown in my own cases, spontaneous cure may even then take place. If pus is present, and the patient refuses to allow the knife to be used, the pus should be removed and the cavity washed out by means of a large sized aspirator needle. It is surprising how much relief often follows the use of the aspirator, even when only a small amount of pus, or even exudate is removed, and how often resolution follows this treatment.

A patient with appendicitis is in a dangerous condition, but before the formation of pus, before ulceration or perforation has taken place, or the appendix has become gangrenous, or has sloughed; the danger lies in the future. During this period we are warranted in resorting to medicinal measures alone, and these measures should be active vigorous ones. I would advise the use of morphin hypodermatically, in such quantities as may be necessary for the relief of pain; a mustard plaster should be applied over the seat of the pain, and this should be followed by hot turpentine stupes, and these by the hot water bottle. Although ice is recommended as a local application, I prefer the hot ones. Sulphate of magnesia should be given, half ounce doses, repeated every three hours until free and full evacuations are obtained and the bowel is completely emptied. In cases of catarrhal appendicitis these measures will usually succeed and resolution will speedily take place. The sulphate of magnesia acts not only as a purgative but also as a local depletant. By its action the blood vessels of the cecum and adjacent parts are unloaded, and resolution much aided. Should these measures fail to give prompt relief, the aid of the surgeon's knife is to be invoked. Should the attack be due to an enterolith or any other body dropping into the appendix, the probabilities are very strongly in favor of the knife.

DISCUSSION.

DR. CAIN believed the great majority of cases originate from fecal obstructions in the colon. These impactions occur more frequently in the ascending colon, where the matter has to overcome the force of gravitation to a certain extent. After dropping into the cecum, the matter remains there for awhile as a fluid, when it is forced out, and it then takes the direction of least resistance, and sometimes part of it is forced into the small opening of the appendix.

DR. DOUGLAS—It is impossible to draw the line when all cases of appendicitis come entirely under the domain of surgery. We have different varieties of appendicitis, as catarrhal or recurring appendicitis, suppurative appendicitis, adhesive in character, slow in progress and oftentimes terminating favorably, and we have acute perforative appendicitis, that causes death before you can do aught to save your patient. In the first variety the pain is diffused over the abdomen, and the patient is frequently relieved by purgatives. The symptoms are only concealed by morphin hypodermatically. In the second variety, delay is dangerous. The mythical grape seed does not enter into the cause so much as people generally believe, and in a number of operations only once have I found a seed, although I have frequently found impaction. Feces will always be found in the appendix upon postmortem examination of these cases. I have seen a number of cases with no tumor, and they are the dangerous cases. We should not rely on the temperature. I have removed ounces of pus with a temperature of 99 degrees. If ice applications for twenty-four hours do not cause the temperature to yield or show symptoms of improvement we should operate. The operation is simple if undertaken early, and delay is dangerous.

DR. EVE, Nashville, thought the essayist very fortunate, and agreed with Dr. Douglas. While believing in conservative surgery, conservatism must not be pushed too far, for there is a point where the physicians should stop and the surgeons begin. These cases are frequently allowed to go too far, and an operation is not a success because of shock.

DR. SAUNDERS—Conservatism here means overwaiting. I do not think any man is justified in waiting more than forty-eight hours. I have never had a case upon which I operated too soon. There is comparatively no risk in the operation, and if you wait you take the life of the patient in your own hands. When you operate, remove the appendix, if it is not already removed.

DR. ROBERT PILLOW, Columbia.—I believe there is a happy medium. I have operated on six cases at home without a failure. One of them had probably fifteen recurring attacks previous to operation. It is true in some cases it does go away without operation, and does not return. This seems to have been the case in my own person. Nearly eight years ago I had an attack which has not recurred. I treated it with saline purgatives.

DR. S. S. CROCKETT, Nashville, was pleased with the remarks of the last speaker. The medical fraternity is made up of two classes; one is chasing the victim with the knife, and the other is letting them die of neglect. Dr. Pillow and Dr. Douglas have both had it and have both gotten well without operation, and there are a number of similar cases, but some of them do die. In the perforative and suppurative varieties an operation is imperative. But, because a patient has an appendicitis, we should not subject him to an operation without a trial. It is remarkable how easily these patients recover from an early operation. We should operate when we are driven to it.

DR. B. L. BRANCH, Rossville, had seen four cases recover after conservative treatment. From one of them a gallon and a half of pus had been aspirated.

DR. WILLIAM KRAUSS, Memphis, had operated successfully on two cases of supposed appendicitis, and in both cases the appendix was perfectly healthy. In one, the cecum was ulcerated through, and both had general peritonitis. He raised the question, whether those who do a great deal of operating for appendicitis, always find appendicitis.

DR. T. J. CROFFORD, Memphis, believed the appendix a murderous sort of thing that should be cut out whenever it gets to cutting up any of its gyrations. If the patient is not comfortable after administration of salts, I advise an operation, and I have never seen a case die when operated upon early. You do not know whether they are perforative or not until you wait. He reported several cases cured by operation.

DR. T. R. MOSS, Dyersburg, thought an operation usually demanded. With regard to the simplicity of the operation, if he had appendicitis he would go to the best surgeon he could get.

DR. ERSKINE had never operated, but had successfully treated a good many cases, and related a number of them. Several got well after the formation and breaking of an abscess. He did not believe in never operating, but is in favor of a very wise conservative line of treatment.

DR. A. J. SWANEY, Gallatin, said the great mistake in this operation is the delay. Besides, it is said that the man who gets well without an operation has just time to make his will. It would be interesting to know how many cases have been lost by conservatism and how many by too early operation.

DR. GASSELL reported a fatal case, which had been treated on the expectant plan.

DR. HAPPEL, in closing, remarked that some have said there will be recurrence of those cases not operated upon, and that they do not get well. One patient I reported has never experienced any relapse in fifteen years. If one-half of these cases will get well without operation, we should give them an opportunity to do so. We should keep them under medicinal treatment a reasonable length of time, and I would fix this at sixty hours.

FIRST DAY—EVENING SESSION.

DR. N. T. DULANEY, the President, delivered an address on "Then and Now, or Forty Years in the Field." The paper was a review of the advances and changes in the science of medicine during the forty years he had been in practice.

DR. RICHARD DOUGLAS, of Nashville, gave as his subject

EXTRA-UTERINE PREGNANCY.

A report of three cases, in each of which operation was followed by recovery. These were supplemented with six others, five of which were operated upon, with one death. The unfortunate case was an extra-peritoneal rupture of some three weeks standing, and the operation was undertaken under most adverse circumstances. The patient died the third day from exhaustion. The sixth case in the series was a postmortem. The patient was taken suddenly while shopping, and died before an operation could be performed. In seven out of nine cases reported, the left tube was the seat of the vicarious growth. In eight cases there was a history of antecedent pelvic inflammation, and in four cases there was reason to believe that gonorrhea was the cause. Pain was a conspicuous symptom. The cases that abound in literature show that primary intraperitoneal ruptures are comparatively infrequent, compared with intraligamentous rupture.

However, three of these cases were intraperitoneal rupture, and six of the downward variety. In cases of intraperitoneal rupture, we should without delay open the abdomen and grasp the proximal side of the tube. This arrests hemorrhage. Then transfuse the patient with a saline solution, bring up the blood pressure and complete the operation by removal of the tube. In cases of extra-peritoneal rupture, prudence recommends waiting twenty-four to thirty-six hours and preparing the patient in the usual way for section. The changes that take place in the tube under the influence of ectopic gestation leave it as a dangerous and useless appendage, and its removal is required.

THE MANAGEMENT OF ECTOPIC GESTATION DURING THE LATTER HALF OF PREGNANCY.

Was given by DR. R. B. MAURY, Memphis. In connection with a report, he presented two specimens. The first specimen had been pronounced an extrauterine pregnancy by Dr. Allen J. Smith, and had been published. The second specimen was presented because of the circumstances connected with it. The rupture took place at the sixth week, and the operation was performed the eighth week, two weeks after the rupture. The gestation sac had been completely detached from the side of the uterus, and was lifted out of the abdominal cavity with the coagulum. An interesting question is what the peritoneum could have done with the detached gestation sac if an operation had not been performed. The coagulæ with the gestation sac were completely cut off from the general peritoneal cavity by intestinal adhesions. From the statistics it is evident these cases can not be wisely left to nature, and we should operate for ectopic gestation as soon as the condition is recognized.

DISCUSSION.

DR. T. J. CROFFORD, Memphis, presented a gestation sac, still in the tube, successfully removed from a case of ruptured pregnancy. The operation lasted twenty minutes. The omentum reached down over one of the largest torn places in the tube, beautifully illustrating the efforts of nature to control the hemorrhage. The history of the case was interesting in that the patient was a young woman, married little over a year; there was a temperature of 100.5 at the time of the operation, and in the abdomen there were about two gallons of blood and fluid. He considered the papers very commendable, but did not think the patient ought to be kept on the operating table too long. Dr. Maury's statistics run back ten or fifteen years, whereas the best results have been obtained in the last few years.

DR. W. W. TAYLOR, Memphis, claimed to be the first person in Tennessee to diagnose ectopic gestation previous to rupture. The case occurred in 1887.

DR. J. S. CAIN remarked that these cases first come under the care of the general practitioner, who should be able to diagnose them, and he asked how the previous speaker made a diagnosis before rupture.

DR. TAYLOR—There was no sign characteristic of tubal pregnancy, but the patient was sterile for ten years. She had missed her periods in December and January, showed the morning sickness; paroxysmal pains; there was a slight bloody discharge from the uterus, a tumor to one side of the uterus, and some early breast changes.

DR. CAIN claimed there is no crucial test for ectopic gestation at this period. However, he believed the casting off of the decidual membranes is sure evidence of ectopic pregnancy.

DR. DOUGLAS had never diagnosed a case of ectopic gestation before rupture.

DR. MAURY had been called to see the case, and said that Dr. Taylor was correct. He had been slow in recognizing the nature of the case and apologized for it.

(To be continued.)

Association of the Military Surgeons of the United States.

Fourth Annual Meeting—Report of Proceedings.

The Association of Military Surgeons of the United States held its fourth annual meeting May 1–4, 1894, in Washington, D. C. The meeting was opened by President Cleveland at 10 A.M., in the National Theater. The interior was brilliantly illuminated, the Committee of Arrangements having made a free use of the National colors for this purpose. Almost 250 members were present, all in uniform—in accordance with the requirements of the program. The house was well filled with interested spectators, many no doubt having been induced to enter by the unusual military display. It may safely be asserted that never before in this country has the opening meeting of a medical association presented so brilliant an appearance. Washington's famous Marine Band added to the military character of the scene.

Surgeon-General George Henderson, of the District of Columbia National Guard, Chairman of the Committee of Arrangements, called the meeting to order, and after prayer by the Rev. T. S. Hamlin, of the Church of the Covenant, President Cleveland opened the proceedings with a few appropriate remarks. He said that as Governor of the State of New York he had taken an interest in its National Guard, and since then he had kept up and extended this interest, as it is upon the Guard that the country must depend in a time of need. He referred to the necessity for coöperation between the National Guards of the different States, and between them and the Army of the United States.

District Commissioner Ross, in an address of welcome, referred to the benefits derived from organization and the advantage to be had by annual meetings for the comparing of professional observations among those having similar responsibilities, similar hopes of honorable preferment, and the same ambition to serve well and loyally the Government established by the fathers of the Republic. He then touched on the natural relation of Washington to the meetings of National associations; and the Coxey Good Roads Association coming into his mind, inasmuch as its members were then marching into the city along Fourteenth Street, he remarked that while citizens may peaceably and reasonably assemble at the National Capital, no man who comprehends our system of government needs to be convinced that any attempt to compel action on the part of any of the three great coördinate branches of the Government by menace or threat, or show of physical force, would be not only unlawful, substituting the rule of the mob for that of the people, but would be an insult to the people of the United States in so menacing or threatening its agents. Dr. S. C. Busey, President of the Medical Society of the District of Columbia, and General Ordway, commanding the National Guard of the District, followed with words of welcome.

The President of the Association, DR. SENN, of Chicago, Colonel and Surgeon-General Illinois National Guard, devoted his address to the consideration of

ABDOMINAL SURGERY ON THE BATTLE FIELD.

He referred to the probable influence of the new small caliber and long range rifles on the character of wounds, which would be more numerous and dangerous than with the old projectiles; but to do justice to this address a full report would have to be penned.

As the members crossed Pennsylvania Avenue to reach the office of the Registrar, they had an opportunity of viewing the long-heralded march of the Coxey army on the Capitol. Quite a number, attracted by curiosity, reviewed the "army," and no doubt created in Mr. Coxey's mind the idea that the military of the United States was out in strong force.

The working sessions of the Association were held in the lecture hall of the National Museum, Smithsonian Institute grounds. The afternoon of the first day was devoted to a "Symposium" on the Transportation of Sick and Wounded, which was opened by Major Charles Smart, U. S. Army, with an admirable review of the history and extent of the subject, which was published in the JOURNAL of May 5. Major Havard, U. S. Army, then described the requirements of a good litter: 1, it must be one and the same for all purposes, that is, the stretcher on which the wounded man is carried from the field must be such that it will fit into the ambulance wagon; 2, it must admit of quick and easy opening and closing. The traverses of our regulation stretcher are not yet perfect; 3, the handles must be fixed and immovable, that is, they must be simply the ends of the poles and in no way jointed or detachable; 4, it should have legs—short so as not to be in the way when the stretcher is closed or strapped, and fixed, as folding legs are a constant source of trouble to the bearers and danger to the patient besides complicating the manual and interfering with the loading of the ambulance wagon; 5, it should be light, strong and simple in construction. Its weight, should, if possible, be reduced to sixteen pounds. Aluminum may hereafter give good results. Major Havard condemned all attempts at procuring lightness at the expense of other essential qualities; 6, the sling should be a part of the bearer's equipment, not of the stretcher. Our regulation

stretcher is satisfactory in most respects except weight; it weighs, with its slings, twenty-four pounds. It is seven and one-half feet long, six feet of canvas for the patient, and one and one-half feet of pole (nine inches at each end) for the handles. Its fixed feet raise it four inches from the ground.

Captain Myles Standish then exhibited the light and easily carried stretcher in use during the past nine years by the Massachusetts troops, and illustrated the ability of the men of the Hospital Corps by photographs of arms and legs bound up in all kinds of extemporized splints. Captain Ives, U. S. Army, Fort Sheridan, Illinois, and Captain Glennan, of Fort Sill, Oklahoma, also submitted papers on the litter and ambulance wagon. That of the latter officer, read in his absence by Colonel Alden, was mainly devoted to pointing out the faults of the present Army ambulance wagon as developed by its use in campaigning in the West.

Major J. Van R. Hoff, U. S. Army, described the travois as used in the Northwest for the transportation of sick and wounded and presented an improved specimen, claiming for it a sphere of usefulness in the future, if long-range bullets are found to necessitate the carriage of wounded men for long distances from the fighting line to the first aid stations or the field hospitals. It is so made that the regulation stretcher fits neatly and securely between its trailing poles. Colonel Louis W. Read, Surgeon-General, Pennsylvania, devoted attention in his paper to transportation by rail and the best methods of fitting up cars for hospital purposes; and Medical Director A. L. Gihon, U. S. Navy, described the methods of handling the sick and wounded on shipboard, pointing out their faults and showing an ambulance cot of his own invention by which they could be remedied. A paper on a field hospital kitchen wagon for sterilizing dressings at dressing stations and on the march, by Captain H. O. Perley, U. S. Army, was read by title in the absence of the author; after which there was some discussion on the best form of stretcher and a committee, consisting of Drs. Hoff, Gihon and Standish was appointed to consider the subject.

A reception and collation in the evening, at the Ebbitt House, the headquarters of the Association, closed the proceedings of the day in a most enjoyable way.

Promptly at 9 A.M., May 2, the meeting was called to order by Dr. Senn. Some committee reports, including that of the Secretary, were presented; after which, to facilitate the selection of officers for the next year, a Nominating Committee was appointed consisting of one member from each State and service represented. The first paper on the program, that of Colonel B. J. D. Irwin, U. S. Army, "Notes on the Introduction of Tent Field Hospitals in War," was read by Colonel Alden. Lieut.-Colonel L. B. Almy, Medical Director Connecticut National Guard, then took up the history of the Red Cross Society, in the course of which he urged that some action be taken to protect the emblem of the Society from desecration by use as a trade-mark for patent medicines, soap, cigars, etc. The Association took immediate action, and Drs. Gihon, Almy and Smart were appointed a Committee to carry out its views. This Committee lost no time in its work, for next day it reported a memorial to Congress, which was adopted by the Association, praying that the Red Cross be not permitted to be used for advertising purposes.

"The Medical Officer at Summer Encampments," by Lieut.-Colonel Chas. R. Greenleaf, U. S. Army, was read by Colonel Alden. According to the author of this paper, there are at these encampments no systematic drilling of the attendants in the handling of stretchers or helpless men, or in the loading of ambulance wagons, no instruction in routine or battle field administrative methods, a too general ignoring of the administrative duties of an Army medical officer and an absence of the discipline on which the successful performance of this duty is founded. The faults, he considers, the result of a failure to appreciate the necessity and importance of such duties; and he describes what he saw at the maneuvers of the Medical Department of the French Army in October last in the field at Puntin, a village near Paris, where nothing was lacking save bullets and blood to complete the realism of the battle field. It may be said that such perfection of high-class field drill is impossible with the small number of troops mustered by us in our summer camps, but the same earnestness and interest put into the work with small detachments would be productive of satisfactory results.

Assistant Surgeon C. W. Galloupe, Battery A. M. V. M., Boston, Mass., in a paper entitled: "The Diet of the National Guard in Summer Encampments," discussed the causes which bring men on sick report,—as many as 10 per cent.—on the first or second morning of the camp. Unusual fatigue of drills or guard duty in men of sedentary occupations; loss of sleep from novelty of surroundings and occupation, unusual noises, the glare of the morning sun on tents and the inopportune visits of uninvited comrades were instanced; but the chief cause was averred to be the change from simple and regular meals to a mixed and injudicious bill of fare, soft drinks and sometimes those of a harder character. In Massachusetts each company caters for itself, paying for meals out of the company fund at the rate of $1.50 daily per man; but the food is never inspected. As showing the advantage of regimental messes by which good cooks are procured and a uniform bill of fare for all the companies, Lieutenant Galloupe gave a description of the method as carried out by his advice in the 8th Mass., in July, 1892, with the bills of fare for fifteen meals (Monday to Saturday) at the rate of 50 cents each. Instead of the usual 30 or 40 at sick call every morning from this command of 600 men, only a few reported sick and after the first two days none at all.

Surgeon J. C. Wise, U. S. Navy, in a paper on "The Naval Medical Officer on Expeditionary Boat Duty," referred to the apathy in providing surgical aid to those injured in these duties, instancing the Battle of the Barges in 1782, in the Chesapeake, where by the explosion of an ammunition chest on the Virginia barge *Protector*, twenty-nine men were killed and as many wounded, many of the deaths having resulted from preventable hemorrhage. During the Civil War, boat expeditions, although of frequent occurrence, were not specially dangerous to life. Boat patrols are common in foreign waters. In cutting out expeditions the gig carrying five men and a medical officer is the hospital boat. This boat is long and narrow and in so far inconvenient, but she is the best because the swiftest. The assignment of a stanch and swift steam cutter is hoped for as one of the advances of the medical service afloat. The paper then touched on the equipment of the boat and its position under certain conditions of service and duty, and concluded with the management of emergencies likely to occur in such service. Sylvester's method was considered the best in cases of drowning.

Captain Jas. E. Pilcher, U. S. Army, read a paper on "The Place of Physical Training in the Military Service." In this he commented on the attention given by the medical department to the prevention of disease by the removal of threatening conditions, and the almost total neglect of prophylaxis by increasing the powers of the soldier to resist disease; and again, weapons are developed and perfected but not men. The perfect man is an ideal. No one man is an embodiment of perfect health. A physical examination of the most vigorous individual would reveal some lesion of actual disease or some predisposing weakness. The object of training is to take cognizance of these physical deficiencies and correct them by movements adapted to that end. Hard labor is not equivalent to physical training. Laborers develop strength in localized groups of muscles; but at the expense of others. Candidates for entrance at West Point, all passed as physically sound by experienced medical officers, are nearly all awkward, unsymmetrical and unevenly developed, and, as they march to the mess hall form a particularly instructive contrast with the third class-men who have enjoyed the benefits of a year's drill in physical training. Dr. Pilcher divided training into: 1, preparatory, by which unequal development is corrected and a proper equilibrium of the system secured; 2, conservative, by which this equilibrium is afterwards maintained. The first specially demands medical supervision. Accurate examination of the recruit exposes his deviation from the normal type and the rectifying exercises may thence be easily deduced. Muscular development depends on the frequency of muscular action. A man with undeveloped calves would be given foot and ankle exercises, and one with a slender forearm the wrist and finger movements. Military drill fails to maintain bodily efficiency; it tends to accentuate asymmetry. Hence the necessity for physical training. Athletic sports should be encouraged because they develop an interest in training.

Captain G. C. Clark, Assistant-Surgeon, member of the National Guard, discussed the relation of the National Guard surgeon to the medical profession and to the community. In the recent great advance in military sanitation and surgery, the medical officers of the Army have taken a leading part; and a high degree of efficiency has been attained by the National Guard surgeons in many of the States in the development of their hospital corps and ambulance organizations. The medical officers of the Guard are by no

means men attracted to the service by bright uniforms and the pomp and panoply of dress parades. The roster of the Association shows the names of many gentlemen eminent not only in the profession but in the special domain of military surgery. Captain Clark suggested that each State should send one medical officer to the Army Medical School, the expense to be borne by the State represented. A surgeon so educated would be of inestimable value to the community in which he lives. His special acquirements would make him of value as an executive health officer, and he would be one of the best qualified railway surgeons.

A paper by Medical Director C. J. Cleborne, U. S. Navy, entitled "Brief Notes on Ships, Hospital, Barrack and Camp Furniture, and on Electric Heating and Cooking" covered a large expanse of ground. Its author considered the modern army ambulance well suited for its purpose but the civic and naval wagons he regarded as too heavy. The ideal ward bedstead should be entirely of metal, light and strong, easily and quickly set up and taken apart, and devoid of ornament, free from cracks, crevices or anything that would give lodgment to dust or vermin. The requirements are, in the main, met by the pipe iron bedstead, weighing with its wire mattress from 120 to 140 pounds, which can be taken apart in from three to seven minutes by the aid of a bed wrench or screw driver; but a new bedstead of similar character weighing only seventy-five pounds has been introduced which can be set up in a few seconds and used as a field stretcher, the legs becoming utilized as handles. Various materials for mattresses are suggested by this officer; among them, for summer use, on a woven wire mattress, one or more layers of thick Japan sponge paper quilted between layers of felt and bound along the edges. Every ship, hospital and barrack should be provided with a crematory for the immediate destruction of animal and vegetable matter, ward sweepings, soiled bandages, etc., and also with a hot air or steam chamber large enough to disinfect iron bedsteads, wire mattresses, bedding and clothing. Aluminum dishes are recommended. In well constructed electric cooking utensils and ovens the heat is dry and concentrated, and unless properly regulated, joints may not be evenly cooked in their interior—a difficulty which may be overcome by gauze or asbestos screens or aluminum wire grills. Loss of weight in roasting, which in the ordinary process amounts to from 20 to 40 per cent., is only 18 to 20, and may be reduced to 10 by an asbestos screen.

Among the papers read by title, on account of the absence of their authors, were: "Notes on the Late Civil War," by Colonel R. F. Michel, Surgeon-General Alabama State Troops; "Camp Hospitals," by Major Lawrence C. Carr, Surgeon Ohio National Guard; and "The Progress of Medico-Military Science in the National Guard of New Jersey," by Surgeon-General John D. McGill.

The afternoon session was opened by Lieut.-Colonel W. H. Forwood, Deputy Surgeon-General U. S. Army and Professor of Military Surgery in the Army Medical School. His subject was: "Weapons of War," and he illustrated these by samples of modern small arms, projectiles and smokeless gunpowder. Among the projectiles were shells as beautifully finished as if they had been intended for parlor ornaments. He had also exposed on the wall of the lecture hall a chart showing the name and caliber, weight and other details of the principal small arms in use by the various nations. His lecture following up the history of small arms to the present small-bore, long-range rifle was interesting and instructive, and as such highly appreciated by the members and the many strangers attracted from the Museum to the Lecture Hall by the proceedings of the Association. Dr. Robert Keyburn, late Surgeon and Brevet Lieut.-Colonel U. S. Vols., followed with a paper in which he showed how the principles of aseptic surgery could be carried out by means of ordinary household utensils. Major W. Reed, U. S. Army, Director of the Bacteriological Laboratory of the Army Medical School, then spoke of the virtues of certain germicides, and particularly of those of trikresol. At the close of this paper the President having observed Miss Clara Barton in the audience, turned the chair over to the Vice-President, Surgeon-General Read, of Pennsylvania, and descended from the platform to greet the President of the American branch of the International Red Cross Society. Miss Barton was presented to the Association and led by Dr. Senn to a seat on the platform, the members rising as the lady was escorted along the aisle.

After a short paper on the action of rattlesnake venom on the serum of the blood, by Captain C. B. Ewing, U. S. Army, the meeting adjourned to enable its members to be present at the reception given by the President and Mrs. Cleveland, at the White House. In the evening the Corcoran Art Gallery was brilliantly illuminated, but very few of the members took advantage of the opportunity to enjoy the pictures and statuary. The interest of the evening centered in the executive session at the Ebbitt House, where after a long close session the Nominating Committee reported the results of its labors to the Association, and the Secretary cast the ballot electing officers as follows:

President, Brigadier-General Geo. M. Sternberg, Surgeon-General U. S. Army. First Vice-President, Colonel Louis W. Read, Pennsylvania National Guard. Second Vice-President, Medical Director Albert L. Gihon, U. S. Navy. Secretary, Lieut.-Colonel Eustathius Chancellor, Medical Director Missouri National Guard. Treasurer, Major Lawrence C. Carr, Surgeon Ohio National Guard. Chairman Committee of Arrangements for the ensuing year, Major Albert H. Briggs, Surgeon New York National Guard, Buffalo, N. Y.

A committee was appointed to inform Surgeon-General Sternberg of his selection by the Association as its President. Drs. Grant, Foster and Hoff were appointed a committee to decide upon a special badge to be worn by members of the Association, and several other business matters pertaining to the domestic economy were attended to. The President was authorized to appoint a committee to consider the relations of the Red Cross Society to the Association of Military Surgeons and the Medical Department of the Army. A resolution was adopted having in view to secure for the Surgeons of the National Guard and the Naval Reserve all the privileges of the Army and Navy Medical Schools now accorded to the medical officers of the army and navy.

The Association was called to order next morning, May 3, at 9:30 when some discussion took place on the advisability of establishing a journal. Captain Pilcher, U. S. Army, and Secretary Chancellor were strongly in favor of this project believing that it would help the Association out by its success financially. Major Carr, the treasurer, was opposed to the undertaking; as the Association was over $400 in debt, he thought it would be wise for it to be sure of floating before it began to swim. Lieutenant R. A. Foster also urged caution and spoke of the risks attending an attempt of this kind. This judicious advice prevailed and the subject was laid over until next meeting.

General H. L. Burrell, Massachusetts Volunteer Militia, then discussed the subject of the special education of military medical officers. He spoke in high terms of the advantages derived by the service from the schools of the soldier and officer, and believed that schools of instruction for the officers of the medical department of the National Guard would not only prove of great value to the Guard but to the regular Army, the medical profession and to the country at large. Lieut-Colonel E. J. Forster, Medical Director, Massachusetts, exhibited copies of the various records and blank forms in use by the Medical Department of the Massachusetts Volunteer Militia and pointed out their advantages. A number of the delegates commended these forms, but others advised the adoption of those of the regular army as the best way of securing uniformity. Major Hoff, U. S. Army, then gave a brief *resumé* of his paper on "The Military Sanitary Organizations of some of the Great Armies of the World," after which Major Havard demonstrated the equipment of the United States sanitary soldier on the person of a member of the Hospital Corps who was present for that purpose. Colonel Alden, U. S. Army followed with some notes on the course of instruction at Army Medical Schools at home and abroad, with special reference to the training of the medical officer. "The Remote Effects of Gunshot Wounds of the Extremities" was the title of the paper read by Lieut-Colonel C. M. Woodward, ex-Surgeon-General Michigan State Troops, and "First Aid on the Battlefield," that of Surgeon H. G. Beyer, U. S. Navy.

The last-named paper contained an excellent presentation of the duties and responsibilites of medical officers on the field of battle, the positions to be taken for rendering first aid and those to be selected for the establishment of field hospitals. Naval surgeons, apparently, do not forget that crews may be landed and that they may have to deal with wounded men under the same conditions as their Army brethren. Major William H. Egle, Surgeon Pennsylvania National Guard, occupied some time in following up the history of the troops of his State to the present time. The first encampment of the Guard, at the Centennial, was considered a failure; but it has seen much active service since then, and is now in most efficient condition. During the course of the day several papers were read by title in the absence of their authors and for want of time.

At 3:30 P.M. the Association met in the Hospital grounds at Washington Barracks, where Captain J. M. Cabell, U. S. Army, superintended a litter and ambulance drill, with illustrations of first aid by a detachment of the Hospital Corps company on duty with the garrison. At 4:30 the meeting embarked on the steamer *Macalester*, for Marshall Hall, a summer landing a little below Mount Vernon, where the Committee of Arrangements had a planked shad dinner in preparation. The party returned to Washington about 10:30 P.M. Next day many of the delegates crossed the Potomac to inspect Fort Myer, Virginia, and be present at a drill of the cavalry companies stationed at this post. Only a few followed out the original program, by making the special excursion to the field of Bull Run.

An excellent exhibit of surgical instruments, dressings and first aid cases, etc., was held in the Armory of the Washington Light Infantry Corps in connection with the meeting.

The fifth annual meeting will be held in Buffalo, N. Y., in May, 1895.

Texas State Medical Society.

The Society Indorses the Public Health Bill of the American Medical Association.

AUSTIN, TEX.—The State Medical Association met, for the third day, April 26, at 9 o'clock.

The Section on Medical Jurisprudence being called by President Sears, Chairman B. F. Brittain, of Arlington, read his report, which, on motion, was referred to the Publishing Committee without debate.

An invitation was received and accepted to visit St. Mary's Academy.

Dr. D. R. Wallace, of Waco, read a paper on the "Increase of Mental Unsoundness," at the conclusion of which a recess was taken for the purpose of selecting members of the Nominating Committee, with the following result:

W. R. Blaylock, McLennan County; G. W. Abney, Robertson; L. Ashton, Dallas; J. M. Frazier, Bosque; G. W. McCaleb, Gonzalez; J. H. Barham, Nacogdoches; J. M. Strayhorn, Williamson; W. P. Powell, Montgomery; J. D. Osborn, Johnson; J. P. Oliver, Burleson; W. M. Cunningham, Bastrop; J. S. Price, Jefferson; S. N. Sholars, Orange; J. H. Reuss, DeWitt; William Caston, Navarro; A. B. Gardner, Austin; W. T. Evans, Leon; E. D. Capps, Tarrant; J. S. Morris, Madison; W. B. Newland, Coryell; J. H. Blackburn, Palo Pinto; S. Bowers, Washington; J. T. Carter, Fayette; F. R. Martin, Hays; C. M. Alexander, Coleman; David Cerna, Galveston; R. C. Nettle, Falls; E. L. Menefee, Hood; R. E. Moody, Nolan; A. S. McDaniel, Bexar; J. E. Thomas, Limestone; George D. Bond, Hill; J. A. Davis, Travis; J. E. Gilchrist, Cooke; W. J. Bever, Houston; J. W. Carhart, Lampasas; E. W. Lenk, Anderson; J. M. Inge, Denton; R. Rutherford, Harris; R. S. Lewis, Wichita; T. J. Bell, Smith; F. A. Fuller, Cherokee; J. L. Autrey, Freestone; B. F. Church, Terrell; Z. T. Bundy, Ellis; J. D. Law, Bell.

At the conclusion of the selection of delegates, Dr. Cunningham discussed Dr. Wallace's paper, and reported some of his experiences with cases of insanity, and the paper was referred to the Publication Committee.

Dr. E. D. Capps, of Fort Worth, followed with a paper entitled: "Morphin Suicides — Prevention — Treatment of Opium Poisoning." Dr. Kennedy, of Galveston, discussed the paper and agreed with Dr. Capps in the main. Dr. Cerna, of Galveston, also made some remarks on the subject and Dr. Wooten, of Austin, followed and related some of his experiences with morphin cases. Dr. Warfield, of Galveston, and Dr. Osborne closed the discussion, and the paper was referred to the Publishing Company with a vote of thanks to Dr. Capps for his paper.

The remaining papers in this Section were referred to the Publishing Company by caption.

A report was received from the Judicial Committee finding the credentials of the following persons regular and recommending their admission to membership: F. A. Fuller, J. E. Brown, William Gammon and L. D. Hill.

Dr. Denton offered a resolution denouncing a secret nostrum manufacturing company. Referred to committee.

The report of the Johnson County Medical Association was read. Dr. Yates, of Plainview, made the report and presented a short paper on guaiacol.

Reports were also received from the Galveston County Association, the Williamson-Bell-Milam Society, the Collin County Association, and the Hill County Association, indicating strong organization and manifest interest therein.

The Section on State Medicine was called and Dr. Bennett, of Austin, read a paper on "The Progress of Preventive Medicine," which was referred to the Publishing Committee with instructions to publish. On motion it was decided to send a copy of Dr. Bennett's paper to the Texas delegation in Congress as the official expression of the Association on sanitary legislation.

Dr. J. W. Carhart, of Lampasas, offered the following resolution, which was adopted:

Recognizing the necessity for additional and advised legislation by the National Government for the protection of the public health against diseases other than cholera, smallpox and yellow fever, which diseases science has demonstrated to be preventable by proper attention to sanitation, the Texas State Medical Association hereby indorses the action of the AMERICAN MEDICAL ASSOCIATION in its petition to Congress to create a Department of Public Health, with an executive officer at its head with equal power and dignity with that of the executive of the other departments of the Government.

Resolved, That the neglect to make laws for the protection of the public health against preventable diseases, in accordance with the revelations of sanitary science, is attributable to the want of definite information on the part of Congress as to the requirements, and not to indifference or disregard of the rights of the public to such protection, and that in the absence of a head of the public health interest, the action of the AMERICAN MEDICAL ASSOCIATION should be taken as an expression of medical opinion on this subject.

Dr. Carhart read a paper on "How to Prevent Typhoid Fever," which was referred to the Publishing Committee without discussion.

He was followed by Dr. Clarence Marfield, of Galveston who read clinical notes on typhus fever in northern Mexico, based upon personal experience, he having but recently recovered from an attack of the fever contracted while practicing in Durango. His paper was largely descriptive, and he asserted that with the mode of living of the lower classes in Mexico it was a wonder that they lived at all, and attributed to the utter disregard of all laws of sanitation the spread of contagion in that country. He remarked that the suggestion of a bath to a Mexican patient was equal to suggesting the swallowing of a dose of poison, and that in consequence layer upon layer of dirt accumulated upon the bodies of these people, ending in disease, poisoning the very air they breathe, and neutralizing the natural salubrity of the climate. According to the Doctor, the native Mexican looks stoically upon the approach of death and resists the aid of science to prevent its attack.

The completion of the reading of the paper was prevented by the entrance of the Nominating Committee, and its reading was continued until to-morrow.

The Committee reported the following officers selected for the Association for the ensuing year: President, J. W. McLaughlin, of Austin; First Vice-President, W. L. York, of Decatur; Second Vice-President, W. R. Blaylock, of McGregor; Secretary, H. A. West, of Galveston; Treasurer, Dr. Laurendon, of Dallas.

The Committee also announced the selection of Dallas as the place for holding the next annual meeting, and the meeting adjourned until 8 P.M.

This afternoon the doctors went up the lake on the *Ben Hur*.

A short night session was held and officers installed.

The banquet at the Driskill was largely attended and speeches were made.

AUSTIN, TEX., April 27.—The State Medical Association met again this morning at 9 o'clock and disposed of the unfinished section work.

Resolutions condemning the custom of bidding for the practice of communities, jails, poor farms, and also denouncing as contrary to the ethics of the profession the giving of certificates to secret formula medicines and deprecating the advertising of such medicines in medical journals were introduced, discussed and passed.

An unsuccessful attempt was made by resolution to abolish the annual banquet.

All unread papers were referred to the Publication Committee by caption.

An invitation was received and accepted from the Mississippi Valley Medical Association to attend its next annual meeting, after which the session adjourned till the fourth Tuesday in April, 1895, when it will convene again in Dallas, Texas.

Blank Applications for membership in the ASSOCIATION, at the JOURNAL office.

BOOK NOTICES.

Report of Typhoid Fever. Baltimore: The John Hopkins Hospital Press. 1894. Volume IV. Number 1.

The broad and enduring basis on which this hospital was founded, and the careful manner in which the provisions of the trust have been carried out, are year by year bringing forth fruit of scientific value. The present report is one on typhoid fever by Prof. Osler. It is divided into eight chapters, as follows: 1, "General Analysis and Summary of the Cases;" 2, "Treatment"; 3, "A Study of the Fatal Cases"; 4, "Notes of Special Features, Symptoms and Complications"; 5, "Neurosis Following Enteric Fever known as the Typhoid Spine"; 6, "Report of Two Cases of Post-Typhoid Anemia with Remarks on the Value of Examination of the Blood in Typhoid Fever," by Dr. W. S. Thayer; 7, "The Urine and the Occurrence of Renal Complications in Typhoid Fever," by Dr. John Hewettson.

The volume concludes with a chapter on typhoid fever in Baltimore.

The work is illustrated by charts and diagrams. It is printed on good paper and has broad margins, and is altogether creditable.

An examination of the report shows that there were 229 cases of typhoid fever treated in the wards. Of these, 22 died, making an average rate of mortality 9.6 per cent. Under the cold bath system, which has been adopted for most cases, the mortality has been reduced to 7.1 per cent.; but a "large proportion of cases, 75 per cent. at least," says Prof. Osler, recover under any and all forms of treatment; even without the good nursing and regulated diet, upon which we lay so much stress. "Medicines are not, as a rule, indicated. No known drug shortens by a day the course of the fever; no method of specific treatment, or of antisepsis of the bowel has yet passed beyond the stage of primary laudation." This somewhat pessimistic view will not, we think, be adopted without protest by our distinguished friend from Youngstown, Dr. Woodbridge, nor by Trouessart or Bouchard. The latter insists on the four indications: General antisepsis, intestinal antisepsis, antipyretic medication, and regimen, and Trouessart states: "There are few diseases in which rigorous intestinal antisepsis is more plainly suggested." Certainly, there would seem to be reason for further experimentation with antisepsis, when it is seen that under the best form of treatment, as recommended by Prof. Osler, there is no such thing as cutting short the usual duration of the disease.

In regard to typhoid fever in Baltimore, Prof. Osler refers to the well-known unsanitary conditions in that city, and states that "while it has a well arranged water supply, still with unprotected sources and constant liability to contamination, it has nothing else—no sewage system, no system of isolation of the sick, no hospital for infectious diseases, no compulsory notification of such a disease as typhoid fever, no disinfecting station, no system of street watering, no inspection of dairies, no inspection of meat. The streets are cleaned, but usually so carelessly that for a large part of the year the citizens breathe a mixture of air, horse dung, and filth of all sorts."

Prof. Osler shows from the health reports of Baltimore that there has been since the year 1888 a yearly average of 229 cases of deaths from typhoid fever, but the morbidity of that disease, namely, those taken sick, can not be ascertained, owing to lack of registration. These facts, which Prof. Osler so forcibly sets forth in this volume, are not new to sanitarians generally of this country, nor indeed to the Board of Health of Maryland; but even at the expense of what some of our literary friends might term "damnable iteration," it is well to keep them before the public. Perhaps coming from an institution of the high professional standing of the Johns Hopkins Hospital, and from the pen of so distinguished a scientist as Prof. Osler, the legal gentleman holding the purse strings of the city exchequer may relax them sufficiently to cause the necessary sanitary work to be instituted.

Pain in its Neuro-Pathological, Diagnostic, Medico-Legal, and Neuro-Therapeutic Relations. By J. LEONARD CORNING, A.M., M.D. Illustrated. Philadelphia: J. B. Lippincott & Co. 1894. Cl., pp. 328. Price $1.75.

This book is divided in two parts of which Part I discusses the physiology, pathology and clinical characteristics of pain, its diagnostic value, and medico-legal relations. Part II is wholly devoted to the special therapeutics of pain. The last chapter discusses "torture or the infliction of pain as a judicial punishment or for the purpose of extorting a confession of guilt."

The book, as a whole, is scientific, well written and interesting. The author has elaborated his well-known views on the therapeutic effects of the application of compressed air, and expresses a belief that many cases of spastic hemicrania may be permanently cured by the administration of antipyrin internally and jugular compression while the patient is placed for a few moments in the compressed air chamber. Many cases are cited, and while the dangers of the induction of the caisson disease are probably not overestimated, yet the author seems to have established the fact that it has a potent value in many hitherto intractable cases. In disseminated sclerosis, in spastic spinal paralysis, and in polio myelitis, the result was negative and it is contra-indicated in cerebral hemiplegia and articular rheumatism. He asserts that the compressed air treatment is "absolutely unapproachable" in all "cerebral and cerebro-spinal difficulties of a functional character, in which pain, exhaustion, insomnia or depression are prominent features." The book should find a place in the library of every neurologist, or general practitioner giving attention to this class of cases.

First Aid in Illness and Injury. By JAMES E. PILCHER, Captain Medical Department U. S. Army. New and revised edition.

In this little work is successfully accomplished the difficult task of presenting in a clear way important medical points to the non-medical mind. This work finds its largest field of usefulness in the instruction of soldiers, sailors, policemen, firemen, railroad men, etc., the classes most frequently called upon to meet a medical emergency. To avoid the criticism that "a little knowledge is a dangerous thing," instruction of this kind should be under the direction of a competent medical man and such a book as this used as a text-book. To the ordinary layman the book, without such personal instruction, would be of little value. Knowledge of how to meet a medical emergency should be more general; dissemination of such knowledge should be, "especially among the classes referred to," encouraged in America as it is in Great Britain and on the Continent. The new edition of Dr. Pilcher's work presents a number of changes. The entire eighteenth chapter has been re-written. It will maintain the place earned by the former edition as a standard work of its class.

Transactions of the New York State Medical Association for the Year 1893. Vol. X. Edited for the Association by E. D. FERGUSON, M.D. New York City. Published by the Association.

This handsome volume, printed in the same style as the preceding volumes, contains also a general index which includes the preceding volumes as well.

The printed papers with the discussions are those of the last regular meeting, held in New York City Oct. 9 to 12, 1893, all of which have been elsewhere printed. In addition, the volume contains memoirs of deceased Fellows, and the minutes of the sessions, and of the Council. That the Association is flourishing is manifest from the long list of members who attend its meetings and subscribe to its tenets. A large proportion of its Fellows are members of the AMERICAN MEDICAL ASSOCIATION and among its stanchest supporters.

THE
Journal of the American Medical Association
PUBLISHED WEEKLY.

SUBSCRIPTION PRICE, INCLUDING POSTAGE:
PER ANNUM, IN ADVANCE $5.00
SINGLE COPIES. . . . . 10 CENTS.
Subscriptions may begin at any time and be sent to
THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No. 68 WABASH AVE., CHICAGO, ILLINOIS.
F. J. REBMAN, LONDON AGENT, 11 Adam Street, STRAND, LONDON.
W. H. LOWDERMILK & CO., WASHINGTON, AGENTS.

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This is obtainable, at any time, by a member of any State or local Medical Society which is entitled to send delegates to the Association. All that is necessary is for the applicant to write to the Treasurer of the Association, Dr. Richard J. Dunglison, Lock Box 1274, Philadelphia, Pa., sending him a certificate or statement that he is in good standing in his own Society, signed by the President and Secretary of said Society, with five dollars for annual dues and subscription for THE JOURNAL. Attendance as a delegate at an annual meeting of the Association is not necessary to obtain membership. On receipt of the above subscription the weekly JOURNAL of the Association will be forwarded regularly.

All members of the Association should send their Annual Dues to the Treasurer, RICHARD J. DUNGLISON, M.D., Lock Box 1274, Philadelphia, Pa.

SATURDAY, MAY 12, 1894.

THE RATIONAL TREATMENT OF DIPHTHERIA.

Diphtheria, more than any other disease, has taught physicians how little can be accomplished by any treatment not fully based on a clear understanding of the causes and determining conditions concerned in the production of the disturbances. All speculative reasoning has not yet given us a single remedial measure which can be relied upon to influence the outcome of that disease. Fortunately, however, recent studies have now opened the definite prospect of combating successfully diphtheritic infection by employment of the very same means by which the system protects itself during spontaneous recovery.

One of the most fundamental recent discoveries in pathology was the demonstration—less than four years ago—by BEHRING (in conjunction with KITASATO) of the antitoxic properties of the blood of immune animals. It was shown that in diphtheria (as well as in tetanus) the recovery from infection or from poisoning with the toxins of the specific bacteria, was accompanied by the formation of a certain substance capable of neutralizing the poisonous effects of the bacterial products. This "antitoxin" is found in the serum of the blood of recovered animals. It was later on shown by EHRLICH that it also passes into the milk of nursing females in considerable quantity. The antitoxic blood serum when mixed with a proportionate amount of a culture of the bacteria of that disease renders the injection of that mixture harmless to fresh animals. It is as yet undecided whether this result is due to a chemical interaction between the poison and its antidote, or, what is more probable, whether it depends on an effect upon the animal system whereby the latter is made insusceptible to a proportionate dose of the bacterial poison.

But greater interest even, centers in the fact that antitoxic serum will neutralize the poison, not only when not mixed with it in the flask, but also when the two are injected separately and at different times. If the antitoxin be introduced first, it remains in the animal system without appreciable loss for some days, and even weeks will elapse before it is entirely eliminated. If, however, the infection or the poisoning with the bacterial products precedes the injection of the immunizing serum, then too, the latter will protect the animal as long as the effects of the poison have not yet become manifest. After the symptoms have begun to appear, the injection of antitoxic serum can no longer be expected to exert a preventive influence. But it can now combat the bacterial poisoning directly, and thus prove *curative* in the most absolute sense of the word, provided the dose of serum is increased to several hundred times the amount necessary for mere prevention.

The most varied experiments by BEHRING and others, have shown beyond doubt that animals infallibly doomed by diphtheritic infection or diphtheritic intoxication can be saved with certainty, if a *sufficiently active serum be employed in sufficient quantity and at not too late a period after the infection.*

The activity of the serum of an immunized animal, that is to say the amount of the antitoxic substance formed, depends on the amount of diphtheria-culture which the animal has withstood. The most active serum is obtained by poisoning animals at first cautiously with sterile cultures, and later on with increasing quantities of the most virulent diphtheria bacilli grown in broth. By thus increasing the tolerance of an animal to the diphtheria toxins by successive inoculation during several months, serum of marvelous power can be obtained.

While BEHRING'S experiments on animals had warranted a trial in man since some time, a delay occurred on account of difficulty of getting active serum in sufficient quantity for systematic clinical use.

Finally, a report appeared one year, by KOSSEL, of a trial of the serum treatment on eleven children with diphtheria in KOCH'S institute. Of this number two died. Although both the low mortality, as well as the tangible improvement in the individual cases spoke in favor of the method, the trial was not extensive enough to decide the utility of the method.

At the International Congress at Rome, HEUBNER related his experience with the injection of diphtheria-antitoxin furnished by BEHRING. He had used it on seventy-nine children. It does not appear from the short report as yet published, what death rate existed amongst these cases. But in summing up the mortality of ninety-six consecutive cases which entered the hospital during the time he was supplied with serum, he records 38.5 per cent of deaths, while of these ninety-six cases but seventy-

nine—and these the selected severest type—were really treated with serum. In comparison, he gives the mortality of the previous ninety-six children not so treated, as 62.5 per cent, and of the next series, likewise not specifically treated, as 49 per cent.

While his conclusions are in favor of the efficacy of immunizing serum, the abstract of his paper does not permit the reader to weigh the evidence fully.

A report of a much more positive and satisfactory character, and one destined to introduce the universal clinical use of diphtheria antitoxin, has finally appeared from KOCH'S laboratory over the signatures of EHRLICH, KOSSEL and WASSERMANN (*Deutsche Med. Wochenschrift*, April 19, 1894). The serum was obtained from highly immunized goats. Its activity was measured by testing the quantity requisite to neutralize the fatal dose of (sterile) diphtheria culture for 1,000 grams animal weight (guinea pig). The amount of antitoxin which can save an animal from ten times the minimal dose the authors call the immunizing unit (I. U). The serum employed was of such strength that one cubic centimeter contains sixty I. U.

Injections of this serum were made on 220 diphtheritic children in various hospitals of Berlin. The dose employed was 130 to 200 I. U. (2.15—3.5 ccm.), and in a few of the more severe cases the injections were repeated every day. Of the 220 cases, 168 cases recovered, *i. e.*, 76.4 per cent.—an exceptionally favorable figure in German hospital experience. Of the cases requiring tracheotomy, sixty-seven gave a mortality of 44.9 per cent, while those not requiring operation had but 14.3 per cent. of deaths.

A better way of showing the efficacy of the treatment is obtained by classifying the cases according to the day of the disease on which the treatment was begun (the figures in brackets giving the number of tracheotomies):

Beginning of the treatment on the	Total number.	Recoveries.	Per cent. of recoveries.	Deaths.
First day	6	6	100	6
Second day	66 (9)	64 (7)	97	2 (2)
Third day	29 (8)	25 (7)	86	4 (1)
Fourth day	39 (14)	30 (10)	77	9 (4)
Fifth day	23 (10)	13 (4)	56.5	10 (6)

The total shows the remarkable influence of the treatment on the disease, as long as it is yet uncomplicated. For the streptococcus invasion, so frequently secondary in diphtheria, is not controlled by the specific treatment. Indeed, a further analysis shows that the deaths were generally due to complications, since of fifty-two deaths, twelve were due to sepsis, thirty to pneumonia, two to miliary tuberculosis and eight to subsequent affections (nephritis and cardiac failure). The authors state it as their opinion that a more liberal use of the serum would help to prevent these late accidents, even to a greater extent. They further show that their death rate is largely due to delay in sending the patients to the hospitals, since one-half of the fatal cases died before the end of the second day of treatment.

While KOCH'S laboratory has not yet offered to supply the public with the immunizing serum, the "Chemische Fabrik auf Actien (vorm E. Schering)" has sent out a circular advertising a diphtheria antitoxin solution made from the serum of immune animals, under the supervision of DR. ARONSON, who has done work on the same subject. It is claimed that its activity has been tested and found equal to twenty I. U. per cubic centimeter according to the nomenclature of the authors quoted. It is recommended to use one ccm. for the prevention of diphtheria after exposure. While the circular also speaks of curative effects to be obtained with the antitoxin, no actual therapeutic experience with it is mentioned. A note, however, has just been published by BEHRING, according to which the advertised antitoxin does not possess the full degree of activity claimed for it.

"THE GREAT WHITE PLAGUE."

DR. BRYCE'S contribution[1] to the study of the extinction of the tuberculosis is, on the whole, a rather depressing document—chiefly because it deals so largely with the agency of tuberculous cattle in the propagation of the disease in man. It is only within the past year or two—that is to say, since KOCH discovered his tuberculin test in 1891—that the extent of bovine tuberculosis has been fairly comprehended; and already we are confronted with data upon which may be based statistics whose enormous totals make the figures of an ordinary sanitary problem insignificant in comparison.

Prior to 1891 the examination of cattle for suspected tuberculosis consisted, in the main, of such examination of the glandular system as might be made by the eye, by palpation and by auscultation, while the crucial diagnostic test was that of the famous French pathologist for enteric fever—the *post-mortem*. Now, all this is changed and by the use of tuberculin—a means for proving the presence of tuberculosis, "so delicate and yet so accurate that the most unbelieving among veterinarians are to-day confessing to its marvelous diagnostic value and significance"—it has been demonstrated that from 2 to 3 per cent. of the cattle in the State of New York are afflicted with the disease.

If only the lower percentage holds good for all the cattle in the United States, then there are over 1,200,000 head, with an aggregate value of nearly $14,000,000, which should be killed forthwith, since their destruction is the only certain method of preventing the further infection, not only of other ani-

[1] Report on tuberculosis. By P. H. BRYCE, M.A., M.D., Secretary Provincial Board of Health, Toronto. Presented to the Provincial Board of Health, Feb. 15, 1894, and adopted with recommendations therein contained.

mals but of man himself from their flesh and milk.

It is possible, indeed, that even these stupendous aggregates are below the mark. DR. BRYCE, in his report,cites figures to illustrate the relative prevalence of tuberculosis in cattle in different countries, from which it is learned that 4.5 per cent. of the cattle slaughtered in Berlin were tuberculous, 9.5 per cent. of those in Upper Sileria and 12.22 per cent. of 12,000 head slaughtered in England under the Pleuropneumonia Act of 1890. Computation halts before applying these percentages to the sixty-odd million head of cattle on farms and ranges in the United States, with their aggregate value of nearly $700,000,000. The $100,000 which a recent Washington dispatch tells us the Department of Agriculture is preparing to expend "in eradicating tuberculosis among cattle," seems pitifully inadequate in comparison.

Still, as DR. BRYCE says in speaking of PROF. KOCH'S discovery, "some light has come which has served in some slight degree to make the cloud hanging over this all-important subject less dark and to cause, perhaps, even some rifts in it to appear." The prominence recently given to the success of measures of prophylaxis against "the great white plague," with its annual tale of 163,500 victims in this country alone, is, of itself, full of promise. The indisputable fact that its death rate has been reduced to one-fifth of its former proportions by the rigid enforcement of the simple and practicable measure of disinfection of the excretions and discharges of every tubercular patient, and of every material thing liable to be contaminated by such excretions and discharges, is a rift in the cloud through which may be discerned the time when tuberculosis, "like leprosy and the black death, shall be of interest merely to the historian of human progress."[2]

LIABILITY FOR TAKING AWAY MEDICINE.

A very singular case was decided by the Supreme Court of North Carolina March 6, 1894, (State v. DANIEL). The defendant apparently a physician, was indicted for and convicted of obtaining goods by false pretenses. The indictment was as follows: "The jurors for the State upon their oaths present that J. H. DANIEL, late of the County of Wake, wickedly devising and intending to cheat and defraud, on the 27th day of August, 1893, with force and arms, at, and in the county aforesaid, unlawfully, knowingly, designedly, and feloniously did, unto one MARK BARKER, falsely pretend that certain medicine, to-wit, one ounce thereof, in the possession of the said MARK BARKER, was too strong to be applied to a sore on the face of the said MARK BARKER, whereas in truth and in fact the said medicine was not too strong to be applied to the sore aforesaid; by means of which said false pretense, he, the said J. H. DANIEL, feloniously, knowingly, and designedly did then and there unlawfully obtain from the said MARK BARKER the following goods and things of value, the property of said MARK BARKER, to-wit, one ounce of medicine, with intent then and there to defraud, against the form of the statute," etc. After a verdict of guilty, the defendant moved in arrest of judgment, because the bill did not charge an indictable offense, but merely the expression of an opinion as to the strength of the medicine. The lower court overruled the motion, and pronounced judgment, from which judgment an appeal was taken to the Supreme Court, which has granted the motion denied by the lower court. It says that the representation being that the medicine was too strong for further use, and the inference being that it was the intention to temper or weaken it, it might well have been held that the judgment ought to have been arrested. But there was the stronger ground that in no case, which could be found had it ever been held that a false expression of opinion, alone, is indictable. The only question left, then, was whether the representation alleged to have been falsely made was a mere opinion or a statement of a fact. It would seem that it could only be construed to be the expression of a judgment of the effect of the medicine upon the sore for the healing of which it had been applied. Too strong for what? For the sore it was intended to heal? This was a matter of professional judgment, and necessarily an opinion. It was impossible to be stated as an abstract fact. And it would be too harsh a rule, the court further says, to hold the physician or the lawyer to criminal account for a statement upon a professional question when it turned out that his judgment was at fault, and by reason thereof his patient or his client had been injured. Especially so, when it has been so often held that such expressions by non-professional persons as to conditions and qualities of goods or animals are only their opinions, and not indictable.

GRADUATION IMPLIES A DIPLOMA.

The fact that a man is a graduate from a medical school carries with it a presumption that he has received a diploma. By the fact of graduation, he becomes entitled to a diploma. So says the Supreme Court of Wisconsin in the case of RIDER v. Ashland County, (decided Feb. 23, 1894,) which was an action brought by a physician to recover a balance claimed to be due him for medical services.

He had testified that he was a practicing physician, and a graduate from an incorporated school of medicine—the Albany Medical College—but was not a member of any medical society in Wisconsin. It was objected that this evidence did not show that he was a qualified physician, within the meaning of the Wisconsin statute providing that no person prac-

[2] The Extinction of Tuberculosis. By GEORGE H. ROHÉ, M.D., JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION. May 5, 1894. p. 659.

ticing physic or surgery, or both, shall have the right to collect, in any action, in any court, fees or compensation for the performance of any medical or surgical service, unless he shall have received a diploma from some incorporated medical society or college, or shall be a member of the State or some county society legally organized in the State.

But the Supreme Court declares that it would be a very narrow construction which should hold that one who had acquired the learning and received the training of such a school—was in fact a graduate of such a school—comes under the ban of this statute, if by reason of some accident or oversight, his diploma has not been physically received by him.

The object to be secured by the statute was, the court continues, not so much that the physician should have the diploma, as it was that he should have the learning and training of such a school. The statute was enacted to furnish a remedy for an evil which was supposed to exist. The people were imposed upon by the ignorance and quackery of medical pretenders. The statute is to be fairly construed to advance the remedy intended. For that purpose it was intended to provide that only men who had been educated and trained in medicine should collect pay for medical services. The most convenient —perhaps the most natural—way of expressing the qualification was as in the words of the statute—that he should have received a diploma. The diploma is a certificate evidencing the fact of graduation.

INDIVIDUAL COMMUNION SERVICE FOR SANITARY REASONS.

Dr. Forbes, of Rochester, N. Y., has been instrumental in causing the adoption of one of the long-looked-for innovations in the Central Presbyterian Church of that city, in respect to the manner in which the rite of communion is therein celebrated. He has caused the ordering of two thousand small cups for the communicants of the church. At the May service of the church, each communicant will be handed his or her own cup or glass, instead of, as formerly, only six to ten cups for some 1,600 participants. Dr. Forbes makes the statement that twenty-two diseases may be communicated from mouth to mouth by means of drinking vessels. In this number he includes tuberculosis and catarrh. He has already obtained some backing, in his notions, from the Pathological Society of his city, and he purposes to urge the Board of Health, as well as the Legislature of 1894–5, to pass ordinances and laws that will prohibit the use of mutual drinking cups by religious bodies.

Blank Applications for membership in the Association at the Journal office.

CORRESPONDENCE.

EUROPEAN LETTER.

[From the Berlin correspondent of the Journal.]

THE GERMAN CHIRURGICAL SOCIETY.—TWENTY-THIRD CONGRESS.

Berlin W., April 18, 1894.

The first session of this Congress, held annually at Berlin, was opened to-day in the Langenbeck House by Prof. Esmarch, of Kiel. Having touched in his opening speech some interests of the Society, he held a necrologue on Theodor Billroth, who died at Abbazia February 6. He had been one of the founders of the Society. His renowned inquisitions on bacteria and wound-healing, his part in promoting chirurgical proceedings on the stomach, his labors in surgery of the ear, his attention to the hospital service for the sick, his humanity, his universality, his interest for art and sciences of all kinds found a warm-hearted commentator in the necrologist. In the year 1893 out of the members of the Society, Prof. Luecke, of Strasburg, and Dr. Passavant, of Frankfurt a. M., were dead, in remembrance of which the Society arose.

The introductory paper, "On the Final Results of Tuberculous Inflammation of Hip-joint treated in the Conservative Way," was read by Bruns, of Tübingen. He mentioned first the researches of Billroth in the same direction, and then gave his own results, going backward to statistics of forty years. His hospital, being situated in Wurtemberg, a State belonging to the German federation, and giving the possibility of a perfect and sure inquiry, his figures may claim an extraordinary worth. He reports 600 cases of cured tuberculous disease of the hip-joint. Cases in observation less than one and one-half to two years were omitted. The disease for the most part appears in young individuals up to about twenty years of age. Fifty per cent. were cured after having been sick four years in the average. When older persons fall sick of tuberculous hip-joint, the hope to be cured is diminished. Often when the coxitis is cured, tuberculosis of other organs sets in and leads to a fatal end. Those who are cured can avail themselves pretty well of the leg and hip-joint, which remain totally fixed in two-thirds of the cases. Then he went over to the remaining deformities, especially the ankylosis in different angles and the shortenings of bone. Bruns is not at all a friend of the excision of tuberculous hip-joints; however, he will wait with a definitive decision on this point till the modern methods of wound-dressing have had their full work in this disease.

DISCUSSION.

Dr. Schede, of Hamburg. Of 229 cases of coxitis since the year 1880 he has treated 112 in the conservative way, with extensions, dressings, injections, etc. Of these, seventy-six have been cured, 68 per cent. Those treated with injections of iodoform gave a result of 82 per cent, cured. Resections, 60 per cent. cured.

Prof. Helferich, of Griefswald. The conservative method will be the method of the future. The children must be extremely well nourished, and sent to the country or seacoast, as is done in England already.

Prof. Gussenbauer, of Prague, saw a case of tuberculous coxitis cured without any treatment at all, only by good outward conditions of air, residence, food, etc., on which, as it is, the hope of curing tuberculosis is founded. If there is no reaction of tissue in a person sick of tuberculosis, every way of treatment will fail.

Prof. v. Bergmann found a rapid recovery of the general health after operation of tuberculous hip-joint. His indications for resection were: formation of large masses of pus; of fistulæ, and necrosis of bone. Some cases should never suppurate during all the time of the disease.

Prof. Hoffa, of Wurzburg, read a paper on "Anatomo-Pathological Demonstrations concerning Congenital Luxation of Hip-joint." By histological researches he found that on the place of resection in the acetabulum new built chondral (hyaline) substance was produced. In some cases the ligamentum teres is absent. In these cases there is crepitus when the leg is moved. They can be improved without operation. Where the ligamentum teres is preserved it slips between the margin of the acetabulum and the femur, and any orthopedic measures will by necessity part it. Operations should be done when children are three to six years of age. Then prognosis is best.

In the discussion Schede rejected operations in adult persons. Lauenstein sees the danger of the operation in the circumstance that the little patients let urine into the dressings. This he prevents by putting them on the wounded hip, by elevating the dressed leg and by a sort of wire mask which holds the dressing on the wound. Its ends are fastened up and down by cambric rolls, so that the perineum is let free. Then the dressings remain clean.

The German medical schools in the different universities during the last winter mustered 7,876 students, of which 1,279 studied at Berlin, 1,114 at Munchen and 788 at Leipzig.

Prof. Heubner, of Leipzig, has been nominated successor of Prof. Henoch in the Chair of Pediatrics in Berlin. Prof. Dr. Escherisch at Graz, Austria, will replace Heubner as director of the infirmary for the diseases of children, and docent in the University.

Prof. Dr. Disse, of Göttingen, has been nominated Professor of Anatomy at Halle.

April 19, 1894.

We are obliged to add to our former report, that Prof. Bruns had collected 600 cases of tuberculous inflammation of hip-joint. Of 200 of these cases he was able to get data, and it is these 200 cases to which his percentage of cures, deaths, etc., refer.

Dr. Habs, of Madgeburg, presented to the Congress "Eighteen Cases of Exarticulation of Knee-joint after the Method of Hagedorn." The operations were done, for the greatest part, some years ago. All those presented go on their stilts in a very clever manner and with great tenacity. A girl, operated upon fourteen years ago, dances whole nights on her wooden leg without letting out any. Others can bear bags of 200 pounds weight without more help than a staff, for better directing his march. The patella in this method is fixed backwards, the surface of the femur being in this manner protected from getting injured.

Prof. Küster, of Marburg, read a paper on "Rhinoplastics" from the skin of the arm. The nose in the case had been destroyed by lupus. If we take the skin of the glabella, [Indian method] the face of the patient is deformed by the scar. The proceeding, as used by Küster, had already been used by Antonio Branca in the middle of the fourteenth century, and afterward neglected. The operation was finished in seven different sessions. The skin newly implanted was fixed at the wound within seven days. The position of the arm was borne well during the first days, but afterwards the operator was obliged to resort to morphia to get over difficulties. The result is now a very good one, but there is a danger that the new implanted skin will shrink. Therefore this is best employed when there are only small defects of the nose. However, rhinoplasty gives but small glory to surgery. The newly built noses soon shrink and take a very unpleasant aspect.

Prof. Heidenham, of Griefswald, showed some cases of "Resection of Foot with Dorsal Position of the Incision."

Dr. Peterson, of Kiel, spoke on the "Treatment of the Colles Fracture of Radius" (fractura radii typica). There are many proceedings of dressings. The best is: After careful re-position of the fragments, the arm is fixed by a simple sling formed by a blanket. The hand hangs flapping downward. Prof. Bardeleben approved this view, stating that for the good result of this method very intelligent patients were wanted.

SECOND DAY.

Prof. Küster, of Marburg, read a paper "On Early Operation in Osteomyelitis." The germs of the disease may be implanted by scratch-wounds. As for treatment, he thinks best to lay open the medulla ossium by broadly chiseling the diseased bones and evacuating the pus. Twenty-four cases were seen, of which fourteen were operated upon in the second week of the disease; nine recoveries. Of three patients operated upon in the third week, two died. In the following weeks, results were better. Therefore he gives counsel to operate as early as possible. Some doubts may be felt about diagnosis, but this will soon be cleared up, the symptoms of the swollen and aching bones being unmistakable. Only when the development of symptoms is slow, the diagnosis may become difficult.

DISCUSSION.

Dr. Karewski, of Berlin, was of the same opinion concerning early operation of osteomyelitis. He calls it even an abortive treatment. Fourteen cases were operated upon, of which six had no suppuration; in the remainder, pus had developed. He operated in the two first weeks of the disease. The operation is not so dangerous for children, great loss of blood being avoided. No deaths in consequence of operation or immediately by the disease. A man of thirty years died after being operated upon for osteomyelitis after he had recovered from an attack of influenza.

Dr. Koerte, of Berlin, has made twenty operations in children up to ten years of age, of which six died; the rest recovered.

Dr. Schede, of Hamburg, had formerly the opinion that osteomyelitis was a benign disease. After he had seen 150 cases in Hamburg his opinion was changed. Osteomyelitis was extremely dangerous if the pelvis or lower mandibles were attacked. After all, osteomyelitis was a part of septico-pyemia, with localization in the bones. The acute cases were hopeless.

Dr. Gusenbauer had seen four hundred or five hundred cases of osteomyelitis. It is an endemic-epidemic disease. Its causation is founded on the presence of the same bacteria as other purulent diseases of swift progress. Even in desperate cases, operation could sometimes save life.

Dr. Sonnenburg says that it is impossible to give general rules; the gravity of the disease is dependent on bacteria of different quality and virulence. To the degree of the disease the treatment should be adapted. Light cases could be treated as a localized disease.

Dr. Helferich, of Griefswald, reported a case of operation of ankylosis of the joint of the lower mandibles in a child, with good function of the joint.

The Revision of the Code.

To the Editor:—Please allow a member to refute a misstatement which seems to have been purposely made by your voluminous, vituperative and dogmatic correspondent, "A Conservative Member," in his last—the tirade against the committee on revision of the ASSOCIATION'S Constitution and Code (April 21 issue). He asserts, "they were not authorized to transmogrify the Code," and that they have "greatly exceeded their instructions," etc. Now, one who attended the Detroit meeting, should know that this committee was doubly instructed to do just what it has done. The committee's announcement of their instructions and plan of work, in the Nov. 19, 1892 JOURNAL contains an

imperfectly condensed statement of the two sets of resolutions which were unanimously passed by the ASSOCIATION at two different days' sessions. Both of these sets of resolutions were offered in sympathy and harmony with President Marcy's wise and liberal recommendations contained in his admirable address, and there was not a voice raised to question the unanimity of their adoption. The first related to needed changes in the ASSOCIATION'S Constitution and By-Laws, while the second set, that which was unanimously reported from the Committee on Nominations, had more special reference to the needed revision of the Code. In this latter, this committee, already appointed, was distinctly instructed to report *for the adoption by the Association at its next annual meeting*, such changes in the Code and Constitution "as in their judgment will properly liberalize the relations of this ASSOCIATION to the great body of the medical profession."

The committee appointed was composed of honorable representative medical men. They have conscientiously and faithfully performed the work assigned them. In this arduous task they sought the opinions and advice of their fellow-members in the ASSOCIATION (see November, 1892 issue of the JOURNAL, page 605). The re-arrangement of our rules of conduct, and of professional relations to suit these changing and broadening times is no easy task when the changing of faulty rules and customs must seem like the abandonment of orthodoxy to a certain number, until their minds shall have broadened to a full appreciation of the present needs of a successful medical profession. However, the Committee's work has been well done. While the writer would have preferred to have seen the Code still further simplified, say by another 30 to 40 per cent. reduction in space occupied compared with the old Code, yet he recognizes such objection as trivial compared with the incorporation of the fundamental and vital changes needed, as marked out by the Majority Committee's preliminary statement at the Milwaukee meeting. In the presentation of these needed amendments, which, as they stated, required the re-writing of the Code, they have not exceeded, but simply executed what they were told to do. The three vital points attended to are:

1. The omission of superfluous and useless portions.

2. Non-interference with the personal rights of members to protect, by patent, surgical or mechanical appliances, and the divorcing of such worthy invention—the same as the copyrighting of books—from "secret nostrum" making and similar frauds.

3. And particularly, the lessening of the friction and frequent misunderstanding between physicians of different scientific attainments and of various professional purpose, by a more liberal construction of the vexed "consultation" problem.

It does not appear to have occurred to the biased and headstrong mind of "A Conservative Member" that the present anomalous condition of the medical profession in the United States is largely due to these impolitic and unwise or unjust sections of the old Code. He does not seem to see that a considerable school of pronounced irregularity has been "boomed" so to speak into popularity, and the possession of the cream of family practice in many large cities gained through the exclusiveism engendered by the old Code. There is no more potent way to promote a weak cause than to make martyrs of its adherents. And homeopathy would be no more to-day in this country than it is in the others over the sea, had it been let entirely alone, *i.e.*, were it not for the unwise opposition of the over-conservative controllers of the AMERICAN MEDICAL ASSOCIATION.

What is the result in the United States up to date? A factional, disjointed, overcrowded medical profession—roughly estimated at over one hundred thousand physicians, about one-eighth of whom are openly arrayed against regular medicine; and about one-fourth of the regular profession in greater sympathy with and in stronger allegiance to special societies or associations than to the would-be parent society of the country. These latter are not in open opposition to the AMERICAN MEDICAL ASSOCIATION, but their representative men, of highest professional repute in commercial centers, are gradually being weaned from the not overfond embrace of a cranky mother.

Evidently for very many of this class, professional respectability—is no longer an outgrowth of or dependent upon what they consider the effete rules of the old dogmatic Code. Of the remainder of the members of the AMERICAN MEDICAL ASSOCIATION, there are probably more than half who stand practically where the writer hereof does, always faithful to the old society, because it is the recognized source of authority for medical men in this country, yet always hoping for the time when broader principles and policy will dominate, so that a unification of the best elements in the medical profession of the United States may be accomplished under the fostering care and control of the AMERICAN MEDICAL ASSOCIATION.

This spirit of unification, mutual concession and harmony which actuates a very large portion of the members of the ASSOCIATION is in no way represented by the dogmatic and uncompromising *conservatism* of the correspondent previously referred to.

From the frequency with which the "learned, honorable and faithful physicians" are lauded in these epistles for writing a code "for all time" and "not susceptible of betterment," one may naturally assume that "A Conservative Member" had had the writing of it himself, and that in his dotage, with a "ruling passion strong in death" for his own individual glory he could not bear to see his own pet phrases changed in any way.

The question remaining unsolved is, Which shall be permitted to die first—"A Conservative Member" or the AMERICAN MEDICAL ASSOCIATION? HARMONY.

Proposed Amendments of the Constitution and Code of Ethics of the American Medical Association.—Some of the Parliamentary Questions Involved.

CHICAGO, May 4, 1894.

To the Editor:—When the report of the Committee on Revision of the Constitution and By-Laws, was made in the meeting of the ASSOCIATION last year, and the President ruled that said report must lie on the table one year and be acted upon at the next annual meeting, several members contended that the ruling was wrong. They claimed that inasmuch as the proposed amendments or revised instrument had been prepared by a committee appointed for that purpose the preceding year, it was equivalent to one year's notice, and consequently was eligible for final action at once. They were quickly silenced, however, by simply reading the present constitutional provision for its amendment, as follows: "VII.—No amendment or alteration shall be made in any of these Articles, except *at the annual meeting next subsequent to that at which* such amendment or alteration may have been proposed; and then only by the voice of three-fourths of all the *delegates* in attendance." This language admits of but one meaning, namely, that every proposed amendment or alteration of the Constitution must be presented *at an annual meeting* and remain on the table for consideration until the next annual meeting before action can be taken thereon. It makes no difference whether the amendments are proposed by a committee previously appointed or by an individual member.

This was fully tested at the annual meeting in 1887. At the preceding annual meeting, 1886, a special committee had been appointed to consider and report upon the practicability of certain alterations in the Constitution and plan of organization of the ASSOCIATION. At the next annual meeting, 1887, the committee made a full report recommending in due form three important amendments to the Constitution. A motion was made to accept the report and adopt the proposed amendments, which was seconded, and at once adopted by the required majority. The small minority immediately claimed that the action had been contrary to the requirements of the Constitution, while others insisted that the special topics under consideration having been in the hands of a committee during the year was sufficient, and at first the President ruled in their favor; but at a later stage of the meeting the action was set aside and the three proposed amendments were laid on the table until the next annual meeting. (See JOURNAL AMERICAN MEDICAL ASSOCIATION, pp. 716-717, Vol. viii, 1887.) At the next annual meeting, 1888, two of the proposed amendments were adopted and the consideration of the third was again postponed another year. (See JOURNAL AMERICAN MEDICAL ASSOCIATION, pp. 694-698, Vol. x, 1888.) At the next annual meeting, 1889, it was fully discussed and rejected by a decisive vote. (See ibid. p. 98, Vol. xiii, 1889.) As the revised or amended constitution proposed by a majority of the Committee on Revision was duly presented at the last annual meeting it will be ready for final action at the next meeting. And as the revised constitution since proposed by the *minority* of the same Committee is strictly *germane* to the topics embraced in that reported by the majority; a motion to substitute the minority report for that of the majority, would be in harmony with both the present Constitution and parliamentary rules.

During all the past history of the ASSOCIATION, its Code of Ethics has been regarded as a part of its organic law; and all attempts to alter or amend it have been subjected to the same rules as govern proposed alterations of the Constitution. The only important amendment that has been made to the Code since its original adoption, in 1847, is the addition of Section, or paragraph 2, Article I, under the head of "Duties for the Support of Professional Character." Its history is as follows: In 1877 a controversy had taken place between the Michigan State Medical Society, or its members, and the Medical Department of the University of Michigan, in which the Faculty of that Department was charged with violation of the Code of Ethics by teaching and recommending for graduation students known to be intending to practice some exclusive or irregular system of medicine. The charges had been referred for adjudication to the Judicial Council of the ASSOCIATION, and it reported that there was no clause in the Code of Ethics bearing with sufficient directness on the subject to constitute a basis for judicial action. It was immediately voted that the Judicial Council, as a special committee, prepare and report at the next annual meeting such an amendment of the Code in the form of an additional Section, as would cover the questions in controversy.

The next annual meeting, 1878, the Committee reported an additional Section of the Code, in accordance with the instructions given the previous year. The President, the late T. G. Richardson, decided that the amendment proposed by the Committee must lie upon the table until the next annual meeting, as the Code was a part of the organic laws, and the decision was fully sustained by the ASSOCIATION, (See Transactions, p. 44, Vol. xxix.) The next year, with Theophilus Parvin as President, the proposed amendment was taken up for consideration near the close of the session, when, on account of the small number present, it was postponed until the next annual meeting. At the next meeting, 1880, it again escaped attention until near the close of the session, when it was taken from the table and made a special order for consideration at 10:30 A.M. on the second day of the next annual meeting. (See Transactions, p. 65, Vol. xxxi.) Accordingly, at the next meeting, which was at Richmond, Va., 1881, with J. T. Hodgen presiding, the proposed amendment was fully discussed, somewhat modified in phraseology, and adopted by the voice of three-fourths of the delegates present. (See Transactions, p. 39, Vol. xxxii.)

It is thus seen that in both theory or principle and in practice, the ASSOCIATION has regarded the Code of Ethics as a part of its fundamental law, to be amended or altered only on the same conditions and in accordance with the same rules of procedure as are prescribed for amendments of the Constitution. If this eminently wise and judicious policy is to be adhered to, when the *revised* Code of Ethics is proposed by the majority of the committee on revision at the next annual meeting, it will be subject to only two parliamentary motions; one to lay it on the table for action at the next annual meeting; the other to postpone its consideration *indefinitely* and discharge the Committee. Neither of these motions would be debatable, and the adoption of the latter would save much valuable time of the ASSOCIATION and greatly promote the best interests of the whole profession.

Yours truly, N. S. DAVIS.

The Golden Opportunity of a Great National Medical Association.

DETROIT, MICH., May, 1894.

To the Editor:—They only gain the largest success who improve every opportunity. The medical profession of the United States has presented for its acceptance or rejection, the opportunity of a generation. This opportunity is the report of the Committee on Revision of the Constitution, By-Laws and Code of Ethics of the AMERICAN MEDICAL ASSOCIATION. The adoption or rejection of the main features of the majority report, will profoundly influence the activities of the medical profession of the United States far into the future. To a few of these features we desire to direct attention.

As to membership: At present, most members of the ASSOCIATION are dummies, viz: They can pay their dues and talk, but can not vote. Yet in the management of the affairs of the ASSOCIATION, votes are the only things which count. It matters not that a member has attended and worked in the interests of the ASSOCIATION for forty years, except he have a delegate's certificate, secured during the present year he can not exercise any final influence upon the management of the ASSOCIATION.

The revised law gives every member the right to vote on all occasions, and so long as he continues his membership. Thus when at a meeting he will not be compelled to stand by as a wooden person while the delegate members vote away his convictions and rights.

This change in membership offers inducements for all to become members, and stay members, in that the old have the same rights as the new members. In this it is a marked contrast to the existing plan, which has no active members, except during the time of meeting, and these must be appointed yearly. The proposed plan is likely to keep, as active members of the ASSOCIATION, most of those who join, because they can retain their rights of membership continually. We do not hesitate in affirming that had this new rule always existed, the increase in membership of the AMERICAN MEDICAL ASSOCIATION would have kept pace with the development of the country, and have been thousands where now it is but hundreds. Those who desire this ASSOCIATION to number seventy-five thousand actual members

will do well not to neglect the present opportunity in securing the adoption of the revised Constitution, By-Laws, etc.

2. The proposed changes afford the ASSOCIATION an opportunity to conduct its meetings entirely in accord with the views of the scientific workers—those who attend the meetings for the purpose of increasing their ability to cope with disease. Such conduct is absolutely essential for the best growth of the ASSOCIATION. Only such conduct will compensate for the loss of practice necessitated by absence from home, and for the expense and fatigue incident to a long journey.

By the present method, more than half the time is consumed in a general session, the principal features of which are disputes over parliamentary laws, personal wrangles, unprofitable and disgusting to all but the participants, and long-winded papers which interest only a few. The proposed changes provide for a general session of the shortest possible length; not more than one or two hours daily; limits all addresses to twenty minutes; takes from the floor of the house all debatable questions and has them first considered by a representative business committee before they are offered for final adoption. It is believed that the proposed changes will render the general sessions profitable to all, and still leave practically the entire day open for effective work in the sections. It is believed that this plan would augment greatly the number of workers in the Sections and multiply largely the membership of the ASSOCIATION.

Will the ASSOCIATION neglect this opportunity?

3. The proposed changes offer the ASSOCIATION a chance to systematically and habitually secure as its advisers the best men in the Sections. Already these exist in an organized body known as the Central Business Committee. The proposed plan makes them the advisers of the ASSOCIATION in selecting its place of meeting and officers. It would seem as if this were better than the present haphazard method.

Will the ASSOCIATION select the better way?

4. In the matter of professional fellowship, an opportunity is presented for the ASSOCIATION to take a position which it can successfully defend, not only in its own ranks, but before any intelligent person. The Revision Committee proposes that all reference to pathy or sect be eliminated from the Code of Ethics, and that every physician select his professional fellows as he chooses, if only the selection be made from those well educated having an honorable reputation and a legal right to practice medicine.

Will the ASSOCIATION improve its opportunity?

5. The Revision Committee advises that equity be established between members of the profession by placing the copyrighting of books and the patenting of mechanical appliances upon the same basis; and by permitting special workers outside of medical colleges, hospitals, dispensaries, etc., to have the same rights of advertisement as have been accorded to those inside. Let the "outs" be placed on the same footing as the "ins," is suggested.

Will the ASSOCIATION heed the suggestion?

After nearly half a century of marvelous advances, both within and without the medical profession, it would seem possible to effect such changes in the organic laws of the AMERICAN MEDICAL ASSOCIATION as would bring it into closer contact with the great forces moving the medical profession, and so attract a membership of vastly greater proportions. The Committee on Revision, acting under instructions from the ASSOCIATION, has studied the situation as best it was able, and has presented its conclusions through the JOURNAL for consideration. It is quite in order to revise the revision so that it may still more accurately represent the medical profession in this country.

The writer has always cheerfully obeyed both the spirit and letter of the old organic laws, and the adoption of the revision would make no difference with his actions. But he also believes that the adoption of the revision would render it possible for the ASSOCIATION to gather within its ranks tens of thousands of physicians who otherwise would stand aloof; that the revision is quite in accord with the spirit of the old Code; in accord with the best spirit of the medical profession from the earliest historic ages; and with the spirit of the best portion of the modern medical profession of all countries. He believes that the increase of individual responsibility given, harmonizes with the larger education, the better morals and general spirit of the age, and so is imperatively demanded of an organization which must stand or fall as it is able to gather to itself the elements of physical, intellectual, professional and moral power which dominate the medical profession of the United States.

Will the ASSOCIATION grasp its golden opportunity ere it passes?

LEARTUS CONNOR, M.D.

Revision of the Code of Ethics.

To the Editor:—A few additional notes on the "revised" Code seem necessary to particularize some of the many defects of the extraordinarily unphilosophical and disorderly production of which the proem is the type. Therefore this second series of notes relate principally to the proem, only a few of them being directed to the letter and spirit of the "revised" Code.

1. Recusancy has characterized the acts of the Majority Committee throughout its work. Had it performed its duties as ordered by the ASSOCIATION, and confined its labors within the prescribed limits, it would not have exposed itself to general censure. But the revisers' condemnation of the original Code and their suggestion that it be re-written "in phraseology so plain as to make it a practical common sense document" implied that they were competent to give a prodigiously well-arranged and admirably well-composed substitute for what they substantially alleged to be obscure, unpractical and senseless. That they have made a sad failure in their attempt to improve upon the original is well shown by their inaccurate, illogical, ill-arranged and ridiculous "revision." Their pretentious but meaningless proem is worthy of tyros of a college society, trying their prentice minds in composing a burlesque; and it is difficult to believe that such a marionettal exhibition of ethics and literature could have been made by men of mature years. It is pitiful that this "Revising" Committee, after angling in vain for arguments in the turbid stream of charlatanism, should endeavor to thrust upon the profession a production whose perusal affronts the eyes, distresses the minds, and assaults the moral sense of loyal physicians. Parts of the "revised" Code are so speciously stated that younger members of the profession will do well to compare them with the original; the fraud will then be apparent, and they will not be likely to accept this counterfeit. Let them remember that when bad morals, sustained by self-interest, are inadvertently indorsed by thoughtless men of good character, the eradication of these evils is next to impossible. Let them remember, also, that the repeal is often much more difficult than the passage of an act. And may they join the older loyal members of the profession in a vigorous defense of its honor against the nefarious attack upon its grand and glorious code of morals!

2. Since the first sentence of the proem—"a code may be either penal or ideal"—seems intended to be aphoristic and is supplemented by characteristically witless definitions of a penal and an ideal code, it is proper to say that a brief analysis of the "aphorism" and "definitions" proves the one to be fallacious and the others to be worse than inaccurate, and that a little reflection has led to the following annota-

tions: 1, that penal is not logically opposed to ideal, and can not be used in contra-distinction; 2, that all the laws all the works of men, are first ideal and become real only when expressed, when performed—the idea coming first is elaborated in the mind, afterward it is expressed, perhaps in words, or is executed by the hand; then and then only it is real; 3, that a penal code and all legal maxims were ideal when conceived in the mind, and became real, authentic, as soon as expressed; 4, that a code of medical ethics and all moral maxims were ideal when conceived in the mind, and became real, authentic, as soon as expressed; 5, that the adjective, ideal, is applicable to qualify all unexpressed maxims, codified or not codified, and can not be used exclusively to qualify any particular code of ethics; 6, that all ideal codes of laws and morals, when expressed, become real, authoritative and penal; 7, that some penalty is necessarily attached to the violation of every law whatsoever; 8, that all laws command or imply thou shalt or thou shalt not; 9, that the penalty is generally proportionate to the kind and degree of violation; 10, that the penalty may be imposed by a judge, by the violator himself in his own conscience, or by nature; 11, that the penalties for some crimes are defined by statute, but the degree of violation is often determinable by the court; 12, that violations of laws governing the reciprocal relations of men, not criminal violations, are punished by damages awarded to the injured "party;" 13, that for violations known to the violator only, the penalty is sting of conscience; and 14, that when fire is applied to his body by a man, the penalty for this violation of a natural law is pain and a more or less severe burn—even in this case the penalty is proportionate to the degree of violation. Hence criminal, civil, moral and natural laws—all ideal when conceived in the mind, then, when expressed, all real, authoritative and penal. This exposition may give an idea of the legal, ethical and logical lore of the committee of men who allege that a great masterpiece of literature and of moral laws is ill arranged, impractical, obscure and senseless!

3. The "revisers" announce the startling discovery that an ideal code is a "crystallization of thought and sentiment." It is, however, proper to record, for the purpose of "exact definition," they qualify the announcement by saying that the thought and sentiment of only a "considerable body of men who, for long periods have been associated with a common purpose" are crystallizable. Therefore only long association of men *with* a common purpose can bring forth crystals of thought and crystals of sentiment which, commingling, give birth to an ideal code. The committee, representing as it seems a kind of progress, the leaders in which decry the works of the past and many of the present, will not be likely to accept some of the definitions of "ideal," nevertheless two definitions by reputable scholars are here given. "The ideal is that which the mind contemplates as a representative of excellence." "The ideal is the prototype of all things . . . . though it is impossible that they can ever attain its perfection." An ancient philosopher, whom the "revisers" may characterize as a fossil, said: "The image is the work; the idea is before the work."

4. Used in any sense, "ideal standard" is a forced expression. Criterion—that rule of judgment—would have better expressed the thought, while standard relates to material things. Standard is too frequently used in a figurative sense. The too free and indiscriminate use of figures of rhetoric in the language of science is often evidence of poverty of diction and even of ideas. A striking example of needless figures is found in the third paragraph of the proem: "A lamp to the feet of the young". . . "A mirror. . . . for the more mature. . . ." the "revisers" leaving the less mature in total darkness, with neither lamp nor mirror. Such figures of speech might have served to relieve the tedium of a lay sermon, but in the proem to a code of medical ethics they are surely out of place. But to give illustrations of the thought-and-idea-saving figures of rhetoric, and thus pay them in their own base coin, the "revisers" may be said greatly to need a mirror in which to see themselves, in their present position, as others see them, and a lamp to guide their tottering steps through the mazes of ethics, rhetoric, law and logic which they have so recklessly entered. There is nothing so easy, space-filling, and time-saving as to borrow figures of speech. These borrowed figures are, however, among the best parts of the "revision," for they are so quaint as to excite mirth, and have even served to rouse a sleepy listener to whom the "revised" Code was read soon after its publication. In the fourth paragraph of the proem it is written—"a code of ethics . . . takes cognizance of, and formulates rules of action . . . ." The "revisers," but not any code of ethics, might, could, would or should take cognizance of, and formulate rules of action. Had they taken cognizance of this fact, perhaps they would have made fewer blunders in their "revision," and would have been likely to say in plain and simple words that a code of ethics is a suitably arranged collection of maxims for the guidance of men in their reciprocal relations. A good code of ethics with well formulated rules of action does not contain "non-essential details" and therefore can never require changes—such is the American Code of Medical Ethics.

5. Verily the "revising" body must have been at a loss what next to say when it gravely reduced to writing that which it probably regarded as mere bombast, with the hope, however, that it might pass as an assertion of professional dignity. "Obviously the code adopted by a learned profession must be ideal rather than penal, as it would be beneath the dignity of its members to bind themselves by penal restrictions." This is little more than a repetition of the idea of the ideal code which is still festering in the ponderous collective mind of the "obnoxious" committee beneath whose dignity are all penalties, including stings of conscience, and which might, with profit, devote more time to the study of ethics in general and medical ethics in particular, together with a sprinkling of rhetoric and logic, and the art, not of "conducting a career," but of self-conduct throughout their career—their course in life. All of which is suggestive of a few years' devotion to "the humanities." The section on etiquette in this proem is written in the same loose, inaccurate and unscholarly manner as the preceding paragraphs. Much is still left unsaid against this proem, composed by men who regard the National Code as senseless and inferior in arrangement and in language!

6. What induced the "revisers" to perpetrate the egregious blunder of composing Article I, of Chapter I, Part I, of their ever-to-be-censured "revision," is past human understanding. This Article, which is even worse than the proem, begins with Bunsbyan platitudes; then it "hangs" issues of life and death, and does not seem certain whether it be the issues, or life and death, that perform duties; to responsibilities it gives consciences which "adjudge penalties for ignorance or neglect," although the oracular "revisers" say in their "ideal" proem that "the Code adopted by a learned profession must be ideal rather than penal, as it would be beneath the dignity of its members to bind themselves by penal restrictions;" for good effect, it solemnly interposes some borrowed figurative language, and finally exhorts those assuming responsibilities to abjure ignorance and improve their minds. This is followed by a travesty on some introductory lecture on preliminary and medical education, such as those delivered a little less than two score years ago by each professor, at every successive annual session, in the schools of medicine. The fashion has long since passed

away. Its revival may be due to the genius of the Majority Committee. Not one sentence in this first Article has a legitimate place in any code of ethics. So much for the Committee's method of "revising" the American Code of Ethics!

7. Xs, these two letters, long ago united in good literary faith, were finally discovered to be incompatible and were divorced by an act of literature. They are now recoupled for the sole purpose of symbolizing the unknown quantity and superfluity in concubinage. Xs would be an appropriate device for the signet of the Code "revising" committee which was an unknown quantity and a superfluity from the beginning. The methods of this Committee long remained unknown, its views were uncertain and often shifting, and the time for publication of the "revision" delayed for unknown reasons. Its appointment was made through intrigue and was not necessary; its "revision" is full of superfluities; it is a superfluous committee which should be discharged without delay, lest it introduce many superfluities likely to be injurious to the ASSOCIATION, through its sophistication of the Code, as exemplified in the second article of the first chapter which begins in true Polonian manner, with a flourish of empty words followed by the shrewd interposition of "sanction of government." This is one of the minor illustrations of the craftiness of the "revisers." The other sections of this article are perversions of the original. The third article consists of two sections worse than perversions of the original, from which have been expunged sections relating to the obligations of patients to their physicians. Such is the manner in which the National Code has been treated by the committee instructed to report if changes be necessary. The first article of the second chapter is another example of the perversion and mutilation of the original with the insertion of a clause which, if adopted, would be an entering wedge for many kinds of irregularities. The second article, "of consultations," is the crowning work of their craftiness, the objective point of the disorganizers. If ever accepted it will lead to the admission of every charlatan in the land within the fold of the regular profession. This is the way in which the Committee is guarding the honor of a respectable medical association!

8. Year after year, ever since their voluntary disfranchisement, the disorganizers have labored constantly and shrewdly to induce some members of the ASSOCIATION to demand a revision of the Code, and have at last succeeded. Their wish is realized but they have no reason to be satisfied with the maxims, arrangement and literary character of the long desired "revision" of the Code. They would probably have preferred its total abolition, but such abolition would surely be injurious to them. Although the codification of ethical maxims does not necessarily change the moral nature of followers of Belial, it warns others to avoid evil and evildoers and points out the right path, which is not always easily found by those who seek it and are in doubt as to its course. The "revisers" have omitted much that is necessary for the guidance of those in search of the right path, and have introduced much that is foreign to an ethical code and much that is unnecessary, notably the chapter on special departments in medical practice, which is one of the blots on the "revision," an addition to their many blunders and superfluities. Then comes the silly divorce of the ethical maxims and rules of etiquette, to which are added the numerous absurdities that the committee chose to prescribe. It is needless to carry this examination farther, and it suffices to say that there are few properly constructed sentences in the whole composition of the "revisers." What is correct in the published "revision" belongs to the original Code. And the ambition of these "revisers" was to reform medical morals!

9. Zealous in their advocacy of the disorganizers' infamous cause, the "revisers" despite their "depreciation," have done all they could to "abolish, belittle, distort and ridicule" the Code and "otherwise lessen its hold upon the profession." They offer, for the grand original, a substitute which is not likely to do them honor or credit, for it is shown that this work of four minds in labor during nearly two years, this much heralded "revision," begins with fallacy, is characterized throughout by sophistry, and ends in absurdity!

A CONSERVATIVE MEMBER.

The Code Revision.—An Appeal to Men of Good Sense.

NEW YORK, May, 1894.

To the Editor:—Will you be so kind as to insert in your esteemed JOURNAL, this short appeal to those members who sincerely have at heart the welfare of the ASSOCIATION?

I am one of the many who believe that our excellent code of morals requires no alterations whatsoever. Therefore I exhort all members to waste no more thought and time in considering the question of revision, but to devote their best energies to carry out the real objects of the ASSOCIATION, which are: To cultivate and advance medical knowledge; to raise the standard of medical education; to promote the usefulness, honor and interests of the medical profession; to protect public health; to enlighten the people concerning the duties, responsibilities, and requirements of medical men; to encourage emulation among members of the profession; to further concert of action in the profession; and to establish friendly relations among members of the profession.

I earnestly appeal to all loyal members of the ASSOCIATION, to exert their utmost influence against propositions which do not pertain to these wise and lofty objects, or which are not in harmony with the Code, and to endeavor to put an end to the disgraceful agitation begun by self-seeking malcontents whose motto seems to be "rule or ruin." It is high time for the men of good sense to assert themselves and rescue the ASSOCIATION from the grasp of those who seek its destruction. Let the revision question be speedily dismissed, and the ASSOCIATION will prosper and its grand mission will be fulfilled.

JOHN G. TRUAX, M.D.

PUBLIC HEALTH.

Tuberculosis Prevention.—The Health Department of New York has inaugurated its preliminary measures for the prevention of tuberculosis in that city. A circular is issued requesting all physicians to furnish the Department the name, address, etc., of each tuberculous patient coming under their care. The information thus obtained will be registered by the Department, but in no case will it interfere with the patient or premises, unless the attending physician so request or unless the patient be an inmate of a tenement house, boarding house or hotel—nor even then if the physician will deliver the circulars of the Department or furnish such equivalent information as is required to prevent the communication of the disease to others. In other cases in these places, inspectors will visit the premises and furnish necessary instructions and the circulars of information and advice.

Where it comes to the knowledge of the Department that premises which have been occupied by a consumptive have been vacated by death or removal, an inspector will visit the premises and direct the removal of infected articles, such as carpets, rugs, bedding, etc., for disinfection, and will make such written recommendations to the Board as to the cleansing and renovation of the apartments as may be required. An order embodying these recommendations will then be issued to the owner of the premises, and compliance with the order enforced. No other persons than those there residing at the time will be allowed to occupy such apartments until the order of the Board has been complied with. Infected articles, such as carpets, rugs, etc., will be removed by the Department, disinfected and returned, without charge to the owner.

In order to secure a prompt and positive diagnosis in a suspected case of tuberculous disease, the Department will make the necessary bacteriologic examination and furnish a report thereof to the attending physician free of charge. The authorities of all public institutions, hospitals, dispensaries, asylums, prisons, homes, etc., within the jurisdiction of the Board are required to furnish to the Department the name, sex, age, occupation and last previous ad-

dress of every consumptive coming under observation within seven days of such time, and the Board earnestly requests the coöperation of all practicing physicians in its efforts "to restrict the ravages of the most prevalent and formidable disease with which we have to deal."

"Cholerine" and Cholera.—Our old acquaintance, "cholerine," the official euphemism for Asiatic cholera, has strutted his brief hour and disappeared from the bulletins, at least for the present and in the localities where it is no longer possible to conceal the truth. The full truth is, however, not yet known as to the extent of the Portuguese epidemic. A rigid censorship is exercised over all information on the subject, but from such information as has transpired it may be estimated that there have already been over 3,500 cases with a high rate of mortality in Lisbon and vicinity. Senor Montaldo, the Chief Medical Director of the Spanish Government, who visited Lisbon last month to investigate the epidemic, reports that the disease was imported by a merchant vessel from the Cape Verde Islands, off the western coast of Africa. A cable dispatch of May 3, however, says that the Board of Health of Lisbon declares the port in a healthy condition. Other recent dispatches confirm the reports of the epidemic prevalence of Asiatic cholera in Western Russia and in the Austrian province of Galicia, of its appearance in Western France in the Department of Finisterre and of its continuance in Constantinople.

Revised regulations to be observed at foreign ports as to vessels destined for the United States, at our own maritime quarantines and on the Canadian and Mexican borders were recently signed by the Secretary of the Treasury.

Smallpox.—The unchecked spread of smallpox in Chicago and its increasing menace to the country at large has caused the health officers of several States and the Dominion of Canada to call another conference on the situation. Drs. Bryce, of the Provincial Board of Ontario; Probst, of Ohio; McCormack, of Kentucky; Baker, of Michigan; Metcalf, of Indiana; Scott, of Illinois: Reeve, of Wisconsin; Hewitt, of Minnesota; Kennedy, of Iowa; and King, of Missouri, are among the signers to the call and the conference was held in Chicago on the 9th and 10th inst.

Notwithstanding the milder weather and the increased energy and multiplied resources of the Health Department, the first week of the present month shows an increase of 27.7 per cent. in the number of cases of smallpox in Chicago as compared with the daily average of cases in the previous month. During April there were 544 cases reported—a daily average of 18; from May 1 to May 7 there were 162 cases reported—a daily average of 23. It is possible that as is claimed, this increase is due, in some measure, to the more thorough work of the inspectors and that a larger proportion of existing cases are now being reported than heretofore. There is scant comfort, however, in this view of the case; it suggests at once the question, What, then, is the actual number of cases of smallpox in Chicago at the present time?

Attention has been called to the fact that clothing is being manufactured in and shipped from infected workshops and tenements, and the factory and tenement inspectors have asked for instructions as to their duties, responsibilities and authority in the premises under the law. It is understood that they have been advised that their authority is plenary, and that their duty is clearly defined to be not only the protection of the health of the inmates of tenements and factories, but of the public health in so far as this may be affected by such establishments, their inmates and employes.

In Illinois, outside of Chicago, the situation shares in the general improvement noted in the country at large and the disease is rapidly losing its importance as an epidemic. There are only seven infected points remaining out of the total twenty-seven reported since January 1, namely, Bloomington, Freeport, Harvey, Lockport, Madison, Rockford and Rock Island. Up to May 7, there had been a total of eighty-three cases with fifteen deaths at twenty-seven points; in sixteen of these points the origin of the outbreak was traced directly to Chicago, in one to Joliet and in ten the origin is reported "unknown."

Infected points are still reported remaining in Massachusetts, Connecticut, New York, Pennsylvania, Tennessee, Texas, Arkansas, Missouri, Michigan, Indiana, Illinois, Wisconsin and Iowa.

ASSOCIATION NEWS.

The Association Train will leave Chicago Monday, May 28, via Santa Fe R. R., Rio Grande Western, and Southern Pacific, for San Francisco via Denver, Colorado Springs, Leadville, Manitou, Glenwood Springs, Salt Lake, Ogden, Truckee and Sacramento. Returning, after the meeting, the train will pass through Sacramento and Northern California to Portland, thence east by way of the Northern Pacific R. R. to St. Paul. C. M. & St. P. R. St. Paul to Chicago. A stop over at Yellowstone National Park for those who desire it has been arranged, and it has been understood that at several places on the journey there will be short stops. President Hibberd's party in a special car join the train at Chicago, and the St. Louis party are expected to join at Kansas City. From all points east and south, concentrating on this train should be effected at Chicago and St. Louis. For all information relating to this train, fares, etc., address J. M. Connell, 212 Clark st., Chicago, or any agent of Santa Fe line in other cities. Rates promised are the lowest excursion rates at time of departure.

This is the only route on which arrangements have been perfected by the Trustees.

SOCIETY NEWS.

Susquehanna County, Pa., Medical Society.—At the annual meeting of the Susquehanna County Medical Society held at Montrose Pa., May 1, 1894, the question of revision of the Code of Ethics was considered and freely discussed by the large number of members present. It was resolved, with one dissenting vote, that this Society does now renew its allegiance to the Code of Ethics of the AMERICAN MEDICAL ASSOCIATION, and the Secretary was directed to report this action to the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

CALVIN C. HALSEY, Secretary.

Ohio State Medical Society.—The forty-ninth annual meeting will be held at Zanesville, May 16, 17, 18, 1894, when the following program will be presented:

The Physician, Dr. Samuel Hart, Marietta.

The University and Medical Education, Dr. D. S. Kellicott.

The Prevention of Consumption, Dr. C. O. Probst, Columbus.

Infection in Tuberculosis. Food Products, Dr. H. H. Spiers, Ravenna.

Is Consumption Curable? Dr. R. E. Chambers, Chandlersville.

La Grippe in the Differential Diagnosis of Scarlet Fever, Measles and Rötheln, Dr. James L. Tracy, Toledo.

Scarlatina, Dr. Amelia J. Prior, Cincinnati.

Diphtheria, Dr. J. S. Haldeman, Zanesville.

The Prevention of Pertussis, Dr. George M. Clouse, Columbus.

Studies in the Etiology of Smallpox, Dr. J. C. Graham, Columbus.

The Value of Recent Therapeutic Literature, Dr. W. C. Chapman, Toledo.

Certain Entozoa of the Dog and Sheep, Prof. D. S. Kellicott, Columbus.

On Imparting Rudimentary Knowledge to Lawyers, Dr. Dan. Millikin, Hamilton.

Unjust Malpractice Suits; Causes and Prevention, Dr. Wm. Estep, Loydsville.

A Year's Operations for Appendicitis, Dr. Dudley P. Allen, Cleveland.

A Case of Cirsoid Aneurism, Dr. W. D. Hamilton, Columbus, and Dr. L. S. Holcomb, Pennsville.

A Case of Aneurism by Anastomosis, Dr. J. C. Crossland, Zanesville.

Splenectomy, with the Report of a Successful Case, Dr. W. J. Conklin, Dayton.

Nephrectomy for Tuberbulosis, Dr. R. Harvey Reed, Columbus.

Gastrostomy; A New Method, Dr. M. Stamm, Fremont.

The Radical Cure of Hernia, Dr. F. C. Larimore, Mt. Vernon.

The Treatment of Uterine Fibroids as Indicated by their Natural History, Dr. C. A. L. Reed, Cincinnati.

Some Remarks on the Total Extirpation of the Fibroid Uterus, with Illustrative Specimens, Dr. Rufus B. Hall, Cincinnati.

Total Extirpation of a Pregnant Myomatous Uterus, with Specimen, Dr. C. N. Smith, Toledo.

Hysterorraphy, The Cure for Retro-deviation of the Uterus, Dr. F. D. Brandenburg, Cleveland.

Practical Application of the Principles of Sterilization, Dr. Hunter Robb, Baltimore, Johns Hopkins University.

Obstetrical Operations Involving Mutilation and Death of the Fetus, Dr. E. Gustav Zinke, Cincinnati.

The Treatment of Fractures in the Light of Advanced Histology and Pathology, Dr. Donald MacLean, Detroit.

Studies in Immunity and Treatment of a Specific Fever, *i. e.*, Hog Cholera, Dr. D. N. Kinsman, Columbus.

Is There a Better Remedy in Cholera? Dr. E. B. Fullerton, Columbus.

The Rationale of Systematic Elimination in the Treatment of Typhoid Fever, Dr. Robert Peter, Canal Dover.

Typhoid Fever, Dr. John E. Woodbridge, Youngstown.

The Modern Treatment of Typhoid Fever, Dr. Howard Jones, Circleville.

Syphilitic Spinal Paralysis, Dr. C. J. Aldrich, Cleveland.

Multiple Neuritis, Dr. Jos. Eichberg, Cincinnati.

The Symptomatology of Hereditary Syphilis, Dr. R. C. Longfellow, Cincinnati.

Acute and Chronic Diseases, Dr. J. R. Black, Newark.

Pneumonia, Dr. A. E. Bell, Zanesville.

The Phenomena of Fertilization and their Bearing on Heredity, Dr. J. Playfair McMurrich, Prof. Biol. Univ. Cincinnati.

Diseases of a Reflex Nature arising from Pathological Conditions of the Uterus and Appendages, Dr. Wm. H. Humiston, Cleveland.

The Importance of Determining Reflex Irritation in Catarrhal Processes, Dr. Jno. P. Sawyer, Cleveland.

The Effect of Obstructive Disease in the Upper Air Passages on the General Health, Dr. J. A. Thompson, Cincinnati.

Headache, Its Relation to Optical and Muscular Defects of the Eyes, Dr. S. C. Ayres, Cincinnati.

Sympathetic Ophthalmia, Dr. B. F. Templeton. Zanesville.

Diseases of the Cornea in Childhood, Dr. C. W. Tangeman, Cincinnati.

The Use of Plaster in Joint Diseases, Dr. T. C. Hoover, Columbus.

Subcutaneous Osteotomy with Cases. A New Osteotome, Dr. Willis W. Hall, Springfield.

Subluxation of the Knee, with Treatment, Dr. S. L. McCurdy, Dennison.

Fractures of the External Condyle of the Humerus, Dr. F. E. Bunts, Cleveland.

Practical Points in Ether Anesthesia, Dr. W. D. Porter, Cincinnati.

Rectal Abscess, Dr. Auguste Rhu, Marion.

Trephining, with Report of Cases, Dr. Leonard Freeman, Cincinnati.

Middle Florida as a Winter Resort for Invalids, Dr. F. D. Case, Ashtabula.

Tonsillitis. Dr. H. J. Noyes, McConnellsville.

A Case of Myxœdema, Dr. E. M. Fitton, Hamilton.

Valvular Disease and Chronic Rheumatism, Dr. W. W. Pennell, Fredericktown.

The Local Treatment of Cystitis, Dr. G. W. Morehouse, Sparta.

Cremation as a Means of Practical Sanitary Reform, Dr. Chas. P. King, Newark.

THOMAS HUBBARD, M.D., Secretary.

The Illinois State Medical Society.—The forty-fourth annual meeting will be held at Decatur, Illinois, May 15, 16 and 17, at Powers' Opera House.

Section One.—Chairman, Dr. T. J. Pitner, Jacksonville. Secretary, Dr. H. McKennan, Paris.

The Practice of Medicine, J. T. Stewart, Peoria.

Fashions in Medicine, G. W. Nesbitt, Sycamore.

Mistakes and Surprises in General Practice, I. L. Firebaugh, Robinson.

Diseases of Old Age, Prophylaxis and Treatment, E. B. Montgomery, Quincy.

Diabetes Mellitus—Some Statistics, N. S. Davis, Jr., Chicago.

Renal Calculus, G. F. Stericke, Springfield.

Atropin in Genito-Urinary Diseases, J. L. Reat, Tuscola.

Artero-sclerosis, with Cases, Frank Billings, Chicago.

Bradycardia, J. B. Walker, Effingham.

A Case of Heart Disease—Autopsy, W. C. Bowers, La Place.

Management of Valvular Heart Diseases, W. F. Waugh, Chicago.

Treatment of Neurasthenia, F. P. Norbury, Jacksonville.

Rheumatic Affections of Spinal Meninges and Nerves, C. Barlow, Eaton.

Nervous Symptoms in Adherent Prepuce, J. T. Pearman, Champaign.

Epilepsy, J. B. Maxwell, Mt. Carmel.

Physical Exercise as a Therapeutic Agent, C. E. Black, Jacksonville.

Elements of Uncertainty in Therapeutics, G. F. Butler, Chicago.

Maternal Impressions, M. P. Hatfield, Chicago.

Nursing Sore Mouth, C. B. Johnson, Champaign.

Section Two.—Chairman, D. W. Graham, Chicago. Secretary, Ellen H. Heise, Canton.

Surgical Shock: *a*, Its Physiology and Pathology, Lester Curtiss, Chicago; *b*, Differential Diagnosis and Elements of Prognosis, Wm. Barnes, Decatur; *c*, Treatment—What to Expect from Drugs, E. W. Weise, Ottawa.

Some Observations on Treatment of Fractures of the Neck of the Femur, Charles C. Hunt, Dixon.

Secondary Hemorrhage in Compound Fractures, Wm. J. Eddy, Shelbyville.

Peroxid of Hydrogen and the Results, F. C. Vandervoort. Bloomington.

Prostatic Obstruction: *a*, The Non-operative Treatment and General Management, Rufus W. Bishop, Chicago; *b*, The Operative Treatment, Lewis L. McArthur, Chicago.

Functional Results after Resection of the Head of the Humerus—Exhibition of a Patient, Wm. E. Guthrie, Bloomington.

Resection of the Head of the Humerus—Reports of Two Cases, F. C. Schaefer, Chicago.

Indications for Mechanical Treatment in the Various Stages of Hip Joint Disease, A. E. Hoadley, Chicago.

Some Common Errors in the Treatment of Infantile Eczema, Frank H. Montgomery, Chicago.

Cauterization of the Nares and Accidents that may follow, E. Fletcher Ingals, Chicago.

The Treatment of Otitis Media Purulente Chronica, Norvel H. Pierce, Chicago.

A Case of Empyema of the Sphenoidal Sinus, T. Melville Hardie, Chicago.

Progressia Myopia, with History of Cases, J. Elliot Colburn, Chicago.

Fibroid Tumors of the Uterus: *a*, Natural History, Lewis A. Malone, Jacksonville; *b*, Their Complications, Marie J. Mergler, Chicago; *c*, To What Extent are they Influenced by Medical Treatment, Walter Ryan, Chicago; *d*, The Palliative Operations and their Comparative Value, Fernand Henrotin, Chicago; *e*, Indications for the Radical Operations, Henry T. Byford, Chicago; *f*, The Radical Operations—A Review, with Description of Technique, Nicholas Senn, Chicago.

Should Lacerations of the Cervix Uterus be more frequently Repaired? A. R. Small, Chicago.

Report of Case of Tubal Pregnancy, with Operation, J. F. Percy, Galesburg.

Bifid Uterus—Pregnancy—Laparotomy, Wm. H. Harsha, Chicago.

A Case of Parotitis with Metastatic Metritis of a Pregnant Uterus—Miscarriage at Three Months, Charles W. Rook, Quincy.

Abortion: *a*, Prophylactic Management, J. C. McKinney, Barry; *b*, Management of Inevitable Abortion, C. W. Sibley, Fairfield; *c*, Management of Neglected Cases, Abby Fox Rooney, Quincy; *d*, The Sequalæ—Their Importance to the Gynecologist, Henry P. Newman, Chicago.

Present Status of Symphyseotomy, J. C. Hoag, Chicago.

Conduct of Natural Labor: *a*, In Hospital Practice, Sarah Hackett Stevenson, Chicago; *b*, In Country Practice, James E. Sutton, Canton.

Section Three.—Section on Etiology, State Medicine and Medical Jurisprudence. *Chairman*, George W. Webster, Chicago; *Secretary*, G. A. Zeller, Peoria.

What is the Proper Mode of Executing Criminals? M. S. Marcy, Peoria.

Emasculation and Ovariotomy as a Penalty for Crime and the Reformation of Criminals, Robert Boal, Lacon.

The Correction of Criminals by Education, W. R. Allison, Peoria.

Legislation for the Prevention of Blindness, Boerne Bettman, Chicago.

Evidences of Sanity in Criminal Cases, James D. Kiernan, Chicago.

Medical Expert Testimony, D. R. Brower, Chicago.

Contagious Diseases occurring in the Public Schools, B. M. Griffith, Chicago.

Needed Sanitary Legislation, A. R. Reynolds, Chicago.

The British Institute of Public Health.—Preliminary program. Congress in London from July 25 to July 31, 1894.

Honorary President: The Right Hon., the Lord Mayor of London.

President: Prof. William R. Smith, M.D., D.Sc., F.R.S. Edin., Barrister-at-Law; Professor of Forensic Medicine and Director of the Laboratories of State Medicine in King's College, London; Medical Officer of the School Board for London.

Vice-Presidents: His Grace the Archbishop of Canterbury; His Eminence the Cardinal Archbishop of Westminster; His Grace the Duke of Westminster, K.G., Lord Lieutenant of the County of London; the Right Hon. and Right Rev. the Lord Bishop of London; the Right Hon. the Lord Mayor of Dublin; the Right Hon. the Lord Mayor of Belfast; the Right Hon. the Lord Provost of Edinburgh; the Right Hon. the Lord Provost of Glasgow; the Right Hon. the Lord Provost of Aberdeen; the Right Hon. the Lord Provost of Dundee; Sir Stuart Knill, Bart., LL.D., Master of the Worshipful Company of Plumbers; Sir Richard Webster, G.C.M.G., M.P., Q.C., Prime Warden of the Worshipful Company of Goldsmiths; Sir John Simon, K.C.B., LL.D., D.C.L., F.R.S.; Sir Joseph Fayrer, K.C.S.I., M.D., LL.D., F.R.S.; Sir George Buchanan, M.D., LL.D., F.R.S.; Sir Charles A. Cameron, ex-Pres. R.C.S., Ireland; Sir T. H. Johnson, Master of the Worshipful Company of Drapers; Sir A. K. Rollit, Chairman of the Council of the Association of Municipal Corporations and President of the Chamber of Commerce, London; Professor Sir Douglas Maclagan, M.D., Pres. R.S. Edin.; Sir Benjamin Ward Richardson, M.A., M.D., LL.D., F.R.S.; Henry Duncan Littlejohn, Esq., M.D., LL.D., Medical Officer to the Board of Supervision for Scotland, Medical Officer of Health to the City of Edinburgh; Edward Frankland, Esq., Ph.D., D.C.L., F.R.S.; Alderman J. Voce Moore, Sheriff of the City of London.

Honorable Treasurer: J. C. Dimsdale, Esq., Alderman and Sheriff of the City of London.

Honorable Secretary: Henry C. Jones, Esq., Clerk to the Board of Works for the St. Giles District; Hon. Solicitor to the Incorporated Society of Medical Officers of Health.

The following is a list of the Sections of the Congress, with the Honorary Secretaries:

A.—PREVENTIVE MEDICINE.

Sectional Discussions have been arranged on the following subjects:

Diphtheria, its Mode of Spread, and Methods of Prevention; the Alleged Aerial Diffusion of Smallpox; the Dissemination of Disease by River Water; the Prevention of Phthisis; the Microörganisms in Sewer Air.

Honorable Secretaries, F. J. Allan, Esq., M.D., F.R.S., Ed., Medical Officer of Health for the Strand District, London, W.C.; J. W. Mason, Esq., M.D., Medical Officer of Health for Hull; Phineas Abraham, Esq., M.A., M.D., Hon. Sec. National Leprosy Fund, 2 Henrietta Street, Cavendish Square, London, W.

B.—CHEMISTRY AND CLIMATOLOGY.

Sectional discussions have been arranged on the following subjects:

Air Pollution; Chemical Treatment of Sewage; The Examination of Potable Waters; Working of the Food and Drugs Act.

Honorable Secretaries, B. Dyer, Esq., D.Sc., Hon. Sec. to the Society of Public Analysts, 17 Great Tower Street, London, E.C.; G. N. Huntley, Esq., Assoc. R.C.Sc. Lond., Demonstrator of Public Health, King's College, London.

C.—NAVAL AND MILITARY HYGIENE.

Sectional discussions have been arranged on the following subjects:

Ambulance Organization; Exhibition of Various Forms of Ambulance with Demonstrations; Meeting of Volunteer Medical Officers Association.

Honorable Secretaries, Surgeon Lieut.-Col. J. M. Beamish, M.D., D.P.H., Medical Officer in Charge of Royal Arsenal, Woolwich; A. H. Cheatle, Esq., F.R.C.S. Eng., Assist. Surgeon, King's College Hospital, London, Surg.-Lieut. Third Vol. Batt. The Queen's Own (Royal West Kent Regiment).

D.—MUNICIPAL AND PARLIAMENTARY.

Sectional discussions have been arranged on the following subjects:

Public Abattoirs and the Inspection of our Meat Supplies; The Utilization of Towns' Refuse for the Reclamation of Land by Aid of the Unemployed; The Registration of Plumbers; The Training and Qualifications of Sanitary Inspectors; Cholera and Port Sanitary Authorities, a Question of National Expenditure.

Honorable Secretaries, A. MacMorran, Esq., Barrister-at-Law, 2 Elm Court, Temple, London, E.C.; J. M. Robinson, L.L.D., Solicitor and Clerk to the Shoreditch Vestry, London.

The meetings of the Congress will take place by the kind permission of the Council, in King's College, London.

Members of the Congress will attend in their official or academical robes, meeting at King's College at 9:45 A.M.

Membership of the Congress is free, as follows: Members or Associates of the Institute; to others $2.50 (10s. 6d.).

MISCELLANY.

St. Louis is to have a hospital exclusively for colored people.

First Pan-American Medical Congress.—The reports in full of the transactions of the first Pan-American Medical Congress are in the hands of the public printer.

University of Buffalo.—The Medical Department of the University of Buffalo, held its annual commencement May 1. There were sixty graduates.

A Fee of Five Figures.—According to a statement in the New York *Sun*, Dr. E. L. Keyes received $60,000 for his four months trip on the yacht, *Valiant*, while attending its owner, Mr. Vanderbilt.

Female Athletes Oppose Vaccination.—Miss Robusta M Strong was asked why it was that she and so many other physically cultured young ladies declined to be vaccinated. Her reply was: "I do not see how I can give up my Indian clubs—and then, you know, I can't possibly spare my bicycle."

Central Dispensary and Emergency Hospital.—At the annual meeting of the contributing members of the Central Dispensary and Emergency Hospital, at Washington, D. C., held Friday the 27th inst., the following were elected as members of the Board of Directors to serve for three years: Dr. G. L. Magruder, W. W. Johnston, E. L. Tompkins, James Kerr Mason, Henry F. Blount, H. L. West, E. Kurtz Johnson and Miss Waite. The annual statement of the work of the Hospital was presented.

The Appointment of Charcot's Successor.—The *Lancet* letter from Paris states that Dr. F. Raymond will, without doubt be given the chair of the late Professor Charcot. He is the first choice of the Committee of the Faculty, Dr. Dejerine standing second, and Prof. Brissaud third, although the latter has had the opportunity of filling the professorate *ad interim*. Dr. Raymond is in his fiftieth year. He is known as a clinician at La Charité and as the author of a text-book on diseases of the nervous system, muscular atrophies and amyotrophic diseases. He has also made a report to the Ministry of Public Instruction regarding the diseases of the nervous system among the Russians.

An Origination of Rural Malaria found in Potable Waters.—Dr Richard H. Lewis, of the North Carolina State Board of Health, has prepared a circular letter for the medical men of his State, regarding the influence of well water in the production of fever and ague. He gives a homely illustration in the recited history of two families who resided as next-door neighbors, in one of the eastern towns of his State. The two families each contained two adults—father and mother—and seven children. The two families were friendly but their homes were sufficiently separated to require inde-

pendent water supplies for each. One family drank from what was regarded with pride as "the best well in town;" the other of rain-water caught in wooden tanks. The members of the first family were constantly sick with malarial disease of one kind or another. Those of the second never had even a chill.

It is the wish to build up a line of testimony, of a like character, if such can be obtained through the medical men of North Carolina. To this end, he has written the appended letter giving an invitation to a coöperative study of the well water origin of malarial diseases:

Dear Doctor:—The evidence that malarial diseases are introduced into the system in many, if not most instances, through the medium of the drinking water is, to my mind, conclusive. The water containing the germs or plasmodia is surface or superficial soil water. Those living in malarial districts who confine themselves to water from cisterns or wells driven or bored beneath the stratum of marl or impervious clay—in other words, beyond the water which soaks down from the surface—are to a large extent free from attacks. If the people of our eastern counties could be generally convinced of this fact and thereby induced to act upon it, the health conditions of that really fine section would be revolutionized for the better. To bring this about is the object of the Board of Health. In order to do this, facts must be presented to them in the concrete—not by illustrations from "Asia and Spasia and t'other side 'o Hillsborough," so to speak, but by instances from among their own neighbors. I write to ask you if you know any facts bearing on this subject and, if so, that you will write them to me in detail at your earliest convenience. Give me the name and postoffice of the head of the family having the experience. If not personally familiar with the facts send me the name and address, that I may write to him direct.

The Maryland State Medical Faculty.—The Baltimore *Medical Journal* congratulates the faculty on the fact that its efforts on behalf of legislation to reduce the dangers of blindness among the newborn have met with success. Maryland is now the fifth State that has adopted this form of preventive legislation, the other States in their order of historical precedence being New York, Rhode Island, Maine and Ohio. The members of the Maryland Faculty who have acted as a committee to promote legislation, were Drs. Woods, Rohé, Friedenwald and Michael. Senator L. C. Carrico, M.D., was sponsor for the bill, before the last legislative session, by which it is made the duty of midwives and nurses to report to a medical man, if there be none in attendance upon the infant whose eyes become swollen and discharge "matter." The age of infant is specified as under two weeks to which this Act is made to apply. The object of paramount importance is to compel non-medical persons to report ophthalmia cases without delay; also to induce them to pay a closer attention to cleanliness, and guard the eyes of the newborn for whose well-being they may chance to be responsible. In the second place the Act accentuates to a certain proportion of our profession the need that devolves on it to instruct the midwife and others as to the perils to vision that attend upon delay and neglect. Another question that, according the Maryland *Medical Journal*, has arisen more than once in the current discussion, is: "Can all physicians treat the trouble properly? A little self-examination is in order. We think ophthalmia neonatorum is a disease whose treatment no medical man has a right not to know. Exceptionally a case may be incurable; but such a case is very exceptional. Of eyes lost, neglect or bad treatment can be found in a large majority. A disease so serious as to receive special legislation in five States demands attention from every practitioner."

We have reason to believe that this rather slowly moving reform will not stop where it is, but will advance more rapidly in the next two or three years. The profession at large should take it up and encourage it.

Barnes Medical College.—At a meeting of the Faculty the following resolutions were passed:

WHEREAS, It is the desire and purpose of the Faculty of the Barnes Medical College to aid in advancing the standard of medical education in every prudent and proper way; and,

WHEREAS, It is desirable, from an educational and humanitarian point of view, to fully qualify those who offer to take charge of so delicate a structure as the human body, and of so valuable a thing as human life; and,

WHEREAS, The extensive departments of Medical Biology, Chemistry, Toxicology, Microscopy, etc., now parts of all well equipped modern medical institutions, require so much more of time and labor to master than has been hitherto devoted to them in our medical colleges; therefore be it

Resolved, That, in order to afford to the teacher and student alike, such time as is necessary to complete a proper curriculum in each department of medicine, "of all regular medical students who intend graduating at the Barnes Medical College at the close of the session of 1899 and 1900, and in all subsequent classes, four years medical study and attendance upon four regular courses of medical and clinical lectures of not less than five months each, shall be required." Provided, that graduates of literary colleges, who have taken a course of scientific study, graduates of schools of pharmacy, and graduates of schools of dental surgery, may be admitted to the second year's work and course of lectures without examination.

Resolved, That we instruct the delegate of the Barnes Medical College to the meeting of the Association of American Medical Colleges, to be held at San Francisco, Cal., on June 5, 1894, to vote upon all questions arising before that body, in accordance with the above resolution, and to use all honorable means to secure the unanimous adoption (by all colleges), of requirements for graduation of students, of *four regular courses of lectures* of not less than five months each in different years.

THE PUBLIC SERVICE.

Army Changes. Official list of changes in the stations and duties of officers serving in the Medical Department, U. S. Army, from April 28, 1894, to May 4, 1894.

Major PETER J. A. CLEARY, Surgeon, so much of par. 13, S. O. 79, A. G. O., April 3, 1894, as assigns him to duty at Ft. Wingate, N. M., is revoked.

Major CALVIN DE WITT, Surgeon, is granted leave of absence for two months, to take effect on or about May 1, 1894, with permission to go beyond sea.

Capt. EDWARD EVERTS, Asst. Surgeon, is granted leave of absence for two months, on surgeon's certificate of disability, to take effect when his services can be spared, with permission to leave the Department of the Colorado.

Capt. G. N. BERKELEY MACAULEY, Asst. Surgeon, is relieved from duty at the U. S. Military Academy, West Point, N. Y., and ordered to duty at Ft. Wingate, N. M., relieving Major WASHINGTON MATTHEWS, Surgeon, who, on being thus relieved, will repair to Washington, D. C., and report in person to the Surgeon-General, for temporary duty in his office.

LETTERS RECEIVED.

(**A**) Alma Sanitarium Co., Alma, Mich.; Ashmead, A. S., New York, N. Y.

(**B**) Bates & Morse Advertising Agency, New York, N. Y.; Blackwell, Henry, New York, N. Y; Byford, H. T., Chicago, Ill.; Brainard, B. F., Kansas City, Mo.; Billings, J. S., Washington, D. C.; Bowers, J. E., Duluth, Minn.; Beman, W. W., Ann Arbor, Mich.; Bate, R. A., Louisville, Ky.

(**C**) Chambers, J. H. & Co., (2) St. Louis, Mo.; C. N. Crittenton Co., New York, N. Y.; Chicago Policlinic, Chicago, Ill.; Chesman, Nelson & Co., (2) St. Louis, Mo.; Crothers, T. D., Hartford, Conn.

(**D**) Dunglison, R. J., (4) Philadelphia, Pa.; Davis, E. W., Wichita, Kansas; Dunlap, H. M., Battle Creek, Mich.

(**F**) French, Pinckney, St. Louis, Mo.; Fitzpatrick, T. V., Cincinnati, Ohio.

(**H**) Herendeen Manufacturing Co., Geneva, N. Y.; Hudspeth, G. W., Little Rock, Ark.; Hanson, A. H., Chicago, Ill.; Hägler, E. E., Springfield, Ill.; Hummel, A. L., Philadelphia, Pa.

(**J**) Jay, F. W., Chicago, Ill.

(**K**) Kimball, H. H., Minneapolis, Minn.

(**M**) Medical Echo Pub. Co., Lynn, Mass.; Mathewson, J. O., Hot Springs, Ark.

(**N**) Newton, Geo. W., Chicago, Ill.

(**P**) Post Graduate Med. School, New York, N. Y.; Pratt, J. W., Boston, Mass.; Post Graduate Med. School, Chicago, Ill.; Pleak, S. M., Lebanon, Ohio; Putnam, M. P., Boston, Mass.; Putnam's, G. P., Sons, New York, N. Y.

(**R**) Rochelle, W. F., Jackson, Tenn.; Rodman, W. L., Louisville, Ky.; Rumbold, T. F., San Francisco, Cal.; Reddick, J. T., Paducah, Ky.; Remondino, P. C., San Diego, Cal.

(**S**) Skiles, H. C., Chicago, Ill.; Scott, J. W., Springfield, Ill.; Sherman, W. P., West Pullman, Ill.; Starkey, H. M., Chicago, Ill.; Swaney, H. N., Grand Ledge, Mich.; Sauer, F. Nicolas, Racine, Wis.

(**T**) The Mercer Chemical Co., Omaha, Neb.; The H. & W. B. Drew Co., Jacksonville, Fla.; Terry, J. W., Englewood, N. J.; The American Physicians' Sanit. Association, Washington, D. C.; The Sanitarium, Battle Creek, Mich.

(**V**) Vose, George F., Baltimore, Md.

(**W**) Willson, H. B. & Co., Washington, D. C.; Winn, Geo. L., Rockford, Ill.; Wyckoff, R. M., (2) Brooklyn, N. Y.; Warner, Wm. R. & Co., Philadelphia, Pa.

PAMPHLETS RECEIVED.

Epilepsy—Its Curability Established. By A. G. Selman, M.D.

Report of Jefferson Medical College and Hospital. 1893.

Children's Rights. An Address. By I. N. Love, M.D.

The Diagnostic Value of Ehrlich's Diazo Reaction. By C. L. Greene, M.D.

Need of Care in the Diagnosis of the Spitting of Blood. By James D. Morgan, M.D.

Castration of Sexual Perverts. By F. E. Daniel, M.D.

Anomalies of Refraction and of the Muscles of the Eye. By Flavel B. Tiffany, M.D.

On Guaiacol applied Externally as an Antipyretic. By Julius Friedenwald, A. B., M.D.

Subvolution—A New Pterygium Operation. By Boerne Bettman, M.D.

Ripening of Immature Cataracts by Direct Trituration. By Boerne Bettman, M.D.

The Spectacle Treatment of Hypermetropia. By Boerne Bettman, M.D.

Program Marion County, Ind., Medical Society. 1894.

Das Codein in der Therapie. Published by Knoll & Co., Germany.